

SEQUENCE LISTING

<110> Frudakis, Tony N.
 Reed, Steven G.
 Smith, John M.
 Misher, Lynda E.
 Dillon, Davin C.
 Retter, Marc W.
 Wang, Aijun
 Skeiky, Yasir A. W.
 Harlocker, Susan L.
 Day, Craig H.
 Li, Samuel X.
 Deng, Ta

<120> COMPOSITIONS AND METHODS FOR THE THERAPY
 AND DIAGNOSIS OF BREAST CANCER

<130> 210121.419C12

<140> US

<141> 2001-08-07

<160> 340

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1

```

ttagagaccc aattgggacc taattgggac ccaaatttct caagtggagg gagaactttt 60
gacgatttcc accggtatct cctcgtgggt attcagggag ctgcccagaa acctataaac 120
ttgtctaagg cgattgaagt cgtccagggg catgatgagt caccaggagt gtttttagag 180
cacctccagg aggettatcg gatttacacc ctttttgacc tggcagcccc cgaaaatagc 240
catgctctta atttggcatt tgtggctcag gcagccccag atagtaaaag gaaactccaa 300
aaactagagg gatTTTgctg gaatgaatac cagtcagctt ttagagatag cctaaaaggT 360
ttt                                     363

```

<210> 2

<211> 121

<212> PRT

<213> Homo sapiens

<400> 2

```

Leu Glu Thr Gln Leu Gly Pro Asn Trp Asp Pro Asn Phe Ser Ser Gly
  1           5           10          15
Gly Arg Thr Phe Asp Asp Phe His Arg Tyr Leu Leu Val Gly Ile Gln

```

T04099-004260

```
<210> 3
<211> 1080
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 681, 685, 706, 720, 741, 752, 758, 780, 789, 824, 840, 859,
866, 884, 890, 905, 917, 926, 930, 951, 957, 959, 962, 974,
980, 982, 988, 995, 996, 1007, 1010, 1025, 1040, 1051, 1052,
1056, 1057, 1078
<223> n = A,T,C or G
```

```
<210> 4
<211> 1087
<212> DNA
<213> Homo sapiens
```

<220>

<221> misc_feature

<222> 559, 574, 576, 581, 582, 587, 589, 593, 594, 609, 627, 640,
659, 668, 672, 677, 691, 713, 714, 732, 741, 812, 813, 823,
825, 829, 838, 845, 849, 852, 855, 856, 859, 874, 876, 877,
892, 902, 907, 916, 917, 938, 950, 951, 952, 953, 960

<223> n = A,T,C or G

<221> misc_feature

<222> 965, 974, 976, 978, 982, 996, 1005, 1012, 1049, 1058, 1073,
1074, 1082, 1084, 1086

<223> n = A,T,C or G

<400> 4

```
tctagagctg cgccctggatc cgcgcacagt gaggagacct gaagaccaga gaaaacacag 60
caagtaggcc ctttaaaacta ctcacctgtg ttgtcttcta atttattctg ttttattttg 120
tttccatcat tttaaggggt taaaatcatc ttgttcagac ctcagcatat aaaatgaccc 180
atctgtagac ctcaggctcc aaccataccc caagagttgt ctgggtttgt ttaaattact 240
gccaggtttc agctgcagat atccctggaa ggaatattcc agattccctg agtagtttcc 300
aggttaaaaat cctataggct tcttctgttt tgaggaagag ttcctgtcag agaaaaacat 360
gattttggat ttttaacttt aatgcttggt aaacgctata aaaaaaattt tctaccoccta 420
gctttaaagt actgttagtg agaaattaaa attccttcag gaggattaaa ctgccatttc 480
agttacccta attccaaatg ttttggtggt tagaatcttc tttaatgttc ttgaagaagt 540
gttttatatt ttcccatcna gataaattct ctcnncctt nntttntnt ctnntttttt 600
aaaaaggant cttgctccgt tgtccangct gggaattttn ttttggccaa tctccgctnc 660
cttgcaanaa tncgtentcc caaaattacc ncctttttcc cacctccacc ccnnggaatt 720
acctggaatt anaggcccc ncccccccc cggttaattt gtttttggtt ttagtaaaaa 780
acgggtttcc tgttttagtt aggatggccc anntctgacc ccnntatcnt cccctcngc 840
cctcnaatnt tnggnntang gcttaccccc ccnngnngtt tttcctccat tnaaattttc 900
tntggantct tgaatnncgg gttttccctt ttaaaccnat tttttttttn nnncccccan 960
ttttncctcc cccntntnta angggggttt cccaanccgg gtcnccccc angtccccaa 1020
tttttctccc cccccctctt ttttctttnc cccaaaantc ctatcttttc ctnnaaatat 1080
cnantnt 1087
```

<210> 5

<211> 1010

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 311, 315, 318, 339, 341, 347, 361, 379, 391, 415, 417, 419,
424, 430, 433, 454, 463, 465, 467, 476, 497, 499, 550, 562,
564, 587, 591, 595, 597, 598, 612, 625, 631, 640, 641, 645,
648, 656, 661, 665, 666, 670, 674, 675, 681, 682, 683

<223> n = A,T,C or G

<221> misc_feature

<222> 687, 688, 692, 710, 721, 778, 788, 811, 820, 830, 860, 867,
868, 871, 872, 889, 892, 896, 897, 899, 904, 915, 936, 951,
960, 970, 986, 990, 1000

<223> n = A,T,C or G

<400> 5

653, 658, 659, 663, 664, 668, 672, 673, 674, 678, 685, 689,
 696, 700, 701, 702, 704, 705, 706, 708, 710, 711, 712, 713,
 715, 719, 722, 725, 727, 731, 734, 735, 737, 739, 742
 <223> n = A,T,C or G

<221> misc_feature
 <222> 745, 748, 749, 751, 752, 754, 755, 757, 759, 762, 765, 767,
 769, 773, 774, 775, 778, 780, 783, 785, 787, 790, 793, 797,
 800, 803, 810, 812, 824, 828, 832, 836, 839, 843, 844, 846,
 848, 850, 852, 853, 855, 858, 859, 861, 864, 865, 866
 <223> n = A,T,C or G

<221> misc_feature
 <222> 868, 869, 872, 875, 880, 886, 889, 890, 891, 892, 893, 895,
 896, 901, 902, 906, 908, 913, 914, 916, 918, 921, 924, 925,
 930, 932, 935, 940
 <223> n = A,T,C or G

<400> 6
 tctagagctc gcggccgcga gctctaatac gactcactat agggcgctga ctcgatctca 60
 gctcactgca atctctgccc ccgggggtcat gcgattctcc tgcctcagcc ttccaagtag 120
 ctgggattac aggcgtgcaa caccacaccc ggctaatttt gtatttttaa tagagatggg 180
 gttttccctt gttggccann atggtctcna acccctgacc tcnngtgatc cccccncccn 240
 nganctcnna ctgctgggga tnnccgnnnn nnnccctccn ncnccccnnn ncncnntccn 300
 tnntccctnc tennnnnnnn cnntcnntcc ncttctcnc cnnntttnt cnnccnccnn 360
 cnncccnent ncccnennnt tenentcnnn tntccnncnn nntcnnncnn cnnnnentnn 420
 ccnntacntc ntnnnnennnt centctntnn cctcnnccnt cncnncnct tntctcctcn 480
 ntnnnnnnct ccnnnnntct cntcnnncnn tncctcnntn nccncccccc ncctcncnc 540
 ctntttttnn cnnccnntcc ntncctttn nntccnntnn cnnentcnc nncntttntc 600
 ccnccnttc cttncnctn nntntcnnn cncntcncnt ntttctcct nntccccnc 660
 tennttcnc cnnntccnc cccnccctnt ctctcncnn nntnnntntn nnnentccnc 720
 tntcncttc ntenntnct tncntcnc ncnntncnc tncctntnt ctntntcnc 780
 tcnctntcn centccnttn ctntctcctn tntccttccc ctncctnct ctttccncnc 840
 ccnntntntn tnnccnnt nctnnncnc cntcntttcn tctctnctnn nntntnccctc 900
 nncctntcc ctntntnct nctntaccn tntctctcn tcttcttcc 950

<210> 7
 <211> 1086
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 501, 691, 711, 735, 751, 780, 810, 819, 826, 832, 849, 889,
 890, 904, 913, 920, 926, 937, 940, 953, 957, 960, 985, 993,
 994, 1000, 1012, 1044, 1060, 1063, 1080, 1081
 <223> n = A,T,C or G

<400> 7
 tctagagctc gcggccgcga gctcaattaa cctcactaa agggagtcga ctcgatcaga 60
 ctgttactgt gtctatgtag aaagaagtag acataagaga ttccattttg ttctgtacta 120
 agaaaaattc ttctgccttg agatgctgtt aatctgtaac cctagcccca accctgtgct 180
 cacagagaca tgtgctgtgt tgactcaagg ttcaatggat ttagggctat gctttgttaa 240
 aaaagtgcct gaagataata tgcttgtaa aagtcacac cattctctaa tctcaagtac 300

```

ccagggaacac aatacactgc ggaaggccgc agggacctct gtctaggaaa gccaggtatt 360
gtccaagatt tctccccatg tgatagcctg agatatggcc tcatgggaag ggtaagacct 420
gactgtcccc cagcccgaca tccccagcc cgacatcccc cagcccgaca cccgaaaagg 480
gtctgtgctg aggaagatta ntaaaagagg aaggctcttt gcattgaagt aagaagaagg 540
ctctgtctcc tgctcgtccc tgggcaataa aatgtcttgg tgtaaaccce gaatgtatgt 600
tctacttact gagaatagga gaaaacatcc ttagggctgg aggtgagaca ccctggcggc 660
atactgctct ttaatgcacg agatgtttgt ntaattgcca tccagggccca ncccccttcc 720
ttaacttttt atganacaaa aactttgttc ncttttctcg cgaacctctc cccctattan 780
cctattggcc tgcccatccc ctccccaaan ggtgaaaana tgttcntaaa tncgagggaa 840
tccaaaacnt tttcccgctg gtcccccttc caaccccgtc cctgggccnn tttcctcccc 900
aacntgtccc ggntccttcn ttcccncccc ctcccnngan aaaaaacccc gtntganggn 960
gccccctcaa attataacct ttccnaaaca aannngttcn aaggtgggtt gnttccgggtg 1020
cggtcgccct tgaggtcccc cctncacccc aatttggaan cngtttttt ttattgccc 1080
ntcccc 1086

```

<210> 8

<211> 1177

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 1, 4, 20, 21, 31, 278, 314, 332, 359, 371, 373, 375, 376,
524, 537, 556, 557, 579, 583, 590, 591, 598, 623, 625, 648,
700, 703, 719, 738, 742, 746, 749, 751, 752, 800, 808, 820,
821, 824, 835, 838, 845, 851, 856, 864, 865, 879, 888

<223> n = A,T,C or G

<221> misc_feature

<222> 911, 920, 926, 935, 945, 950, 952, 956, 969, 972, 977, 981,
992, 999, 1023, 1024, 1032, 1038, 1039, 1040, 1062, 1069,
1075, 1084, 1089, 1104, 1119, 1123, 1131, 1143, 1146, 1152,
1165, 1169, 1172, 1176

<223> n = A,T,C or G

<400> 8

```

nccnttttaga tggtgacaan ntaaacaagc ngctcaggca gctgaaaaaa gccactgata 60
aagcatcctg gagtatcaga gtttactgtt agatcagcct catttgactt cccctcccac 120
atggtgttta aatocagcta cactacttcc tgactcaaac tccactattc ctgttcatga 180
ctgtcaggaa ctggttgaaa ctactgaaac tggccgacct gatcttcaaa atgtgcccct 240
aggaaagggtg gatgccaccg tgttcacaga cagtaccncc ttccctcgaga agggactacg 300
aggggccgggt gcanctgtta ccaaggagac tnatgtgttg tgggctcagg ctttaccanc 360
aaacacctca ncnennaagg ctgaattgat cgccctcact caggctctcg gatggggtaa 420
gggatattaa cgtaaacact gacagcaggt acgcctttgc tactgtgcat gtacgtggag 480
ccatctacca ggagcgtggg ctactcactc ggcaggtggc tgtnatccac tgtaaangga 540
catcaaaagg aaaacnnggc tgttgcccgt ggtaaccana aanctgaten ncagctcnaa 600
gatgctgtgt tgactttcac tcnncctct taaacttgct gccacantc tcctttccca 660
accagatctg cctgacaatc cccatactca aaaaaaaaaa aanactggcc ccgaaccna 720
accaataaaa acgggggangg tnggtnganc nncctgaccc aaaaataatg gatcccccg 780
gctgcaggaa ttcaattcan ccttatcnat acccccaacn ngngnggggg ggccngtncc 840
cattnccct ntattnattc ttttnccccc ccccgccnt cctttttnaa ctcgtaaaag 900
ggaaaacctg ncttaccan ttatcnctg gacntcccc ttccnccgtn gnttanaaaa 960
aaaagccnc antccntcc naaatttgca cngaaaggna aggaatttaa cttttattt 1020
ttnntccttt antttgtnnn cccctttta cccaggcgaa cngccatcnt ttaanaaaaa 1080

```

```
<210> 9
<211> 1146
<212> DNA
<213> Homo sapiens
```

```
<221> misc_feature
<222> 1121, 1130, 1135, 1136, 1146
<223> n = A,T,C or G
```

```
<210> 10
<211> 545
<212> DNA
<213> Homo sapiens
```

<400> 10							
cttcattggg	tacggggccc	ctcgaggtcg	acggtatcga	taagcttgat	atcgaattcc		60
tgcagocogg	gggatccact	agttctagag	tcaggaagaa	ccaccaacct	tcctgatttt		120
tattggctct	gagttctgag	gccagttttc	ttcttctgtt	gagtagtcgg	gatttgtcagg		180
cagatctggc	tgtggaaagg	agactgtggg	cagcaagttt	agaggcgtga	ctgaaagtc		240
cactgcatct	tgagctgctg	aatcagcttt	ctggtattcca	cgggcaacag	cctgtgtttc		300
cttttqatgt	cttttacagt	ggattacagc	cacctgctga	ggtgagtagc	ccacgctcct		360

ggtagatggc tccacgtaca tgcacagtag caaaggcgta cctgctgtca gtgttaacgt 420
 taatatcctt accccatcgg agagcctgag tgagggcgat caattcagcc cttttgtgct 480
 gaggtgtttg ctggttaagc cctgaaccca caacacatct gtctccatgg taacagctgc 540
 accgg 545

<210> 11
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 11
 tctcctaggc tgggcacagt ggctcatacc tgtaatcctg accgtttcag aggctcaggt 60
 ggggggatcg cttgagccca agatttcaag actagtctgg gtaacatagt gagaccctat 120
 ctctacgaaa aaataaaaaa atgagcctgg tgtagtggca cacaccagct gaggagggag 180
 aatcgagcct aggaga 196

<210> 12
 <211> 388
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 82, 162, 287
 <223> n = A,T,C or G

<400> 12
 tctcctaggc ttgggggctc tgactagaaa ttcaaggaac ctggggattca agtccaactg 60
 tgacaccaac ttacactgtg gntccaata aactgcttct ttccatttcc ctctctatta 120
 aataaaataa ggaaaacgat gtctgtgtat agccaagtca gntatcctaa aaggagatac 180
 taagtgacat taaatatcag aatgtaaaac ctgggaacca ggttcccagc ctgggattaa 240
 actgacagca agaagactga acagtactac tgtgaaaagc ccgaagnggc aatatgttca 300
 ctctaccgtt gaaggatggc tgggagaatg aatgctctgt cccccagtcc caagctcact 360
 tactatacct cttttatagc ctaggaga 388

<210> 13
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 13
 tagtagttgc ctataatcat gtttctcatt attttcacat tttattaacc aatttctggt 60
 taccctgaaa aatatgaggg aaatatatga aacagggagg caatgttcag ataattgatac 120
 acaagatatg atttctacat cagatgctct ttcccttcct gtttatttcc tttttatttc 180
 gggtgtgggg tcgaatgtaa tagctttggt tcaagagaga gttttggcag tttctgtagc 240
 ttctgacact gctcatgtct ccaggcatct atttgcaatt taggaggtgt cgtgggagac 300
 tgagaggtct attttttcca tatttgggca actacta 337

<210> 14
 <211> 571
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature
 <222> 435, 441, 451, 456, 462, 479, 488, 489, 509, 568
 <223> n = A,T,C or G

<400> 14
 tagtagttgc catacagtgc ctttccattt atttaacccc cacctgaaag gcataaaactg 60
 agtggttcagc tgggtgtttt tactgtaaac aataaggaga ctttgctctt catttaaacc 120
 aaaatcatat ttcataattt acgctcgagg gttttttaccg gttccctttt acactcctta 180
 aaacagtttt taagtcgttt ggaacaagat attttttctt tcctggcagc ttttaacatt 240
 atagcaaatt tgtgtctggg ggactgctgg tcaactgtttc tcacagttgc aaatcaaggc 300
 atttgcaacc aagaaaaaaa aatttttttg ttttatttga aactggaccg gataaacggt 360
 gtttgagcgc gctgctgtat atagttttaa atgggtttatt gcacctcctt aagttgcact 420
 tatgtggggg ggggnttttg natagaaagt ntttantcac anagtcacag ggacttttnt 480
 cttttgggna ctgagctaaa aagggtgnt tttcgggtgg gggcagatga agggtcacag 540
 gaggcctttc tcttagaggg gggaactnct a 571

<210> 15
 <211> 548
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 224, 291, 326, 376, 388, 394, 428, 433, 507, 514
 <223> n = A,T,C or G

<400> 15
 tatatatatta ataacttaaa tatattttga tcaccactg gggtgataag acaatagata 60
 taaaagtatt tccaaaaagc ataaaaccaa agtatcatat caaaccaaatt tcatactgct 120
 tccccacccc gcactgaaac ttcaccttct aactgtctac ctaaccaaatt tctacccttc 180
 aagtcttttg tgcgtgctca ctactctttt tttttttttt tttnttttgg agatggagtc 240
 tggctgtgca gccaggggt ggagtacaat ggcacaaact cagctcaactg naacctccgc 300
 ctcccagggt catgagattc tcctgnttca gccttcccag tagctgggac tacagggtgtg 360
 catcaccatg cctggntaat cttttttngt tttngggtag agatgggggt tttacatgtt 420
 ggccaggntg gtntcgaact cctgacctca agtgatccac ccacctcagg ctcccaaagt 480
 gctaggatta cagacatgag ccactgngcc cagnoctggt gcatgctcac ttctctaggc 540
 aactacta 548

<210> 16
 <211> 638
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 471, 488
 <223> n = A,T,C or G

<400> 16
 ttccggttatg cacatgcaga atattctatc ggtacttcag ctattactca ttttgatggc 60
 gcaatccgag cctatcctca agatgagtat ttagaaagaa ttgatttagc gatagaccaa 120
 gctggtaagc actctgacta cacgaaattg ttcagatgtg atggatttat gacagttgat 180
 ctttggaaga gattattaag tgattatttt aaagggaatc cattaattcc agaatatctt 240
 ggttttagctc aagatgatat agaaatagaa cagaaagaga ctacaaatga agatgtatca 300

```

ccaactgata ttgaagagcc tatagtagaa aatgaattag ctgcatttat tagccttaca 360
catagcgatt ttcttgatga atcttatatt cagccatcga catagcatta cctgatgggc 420
aaccttacga ataatagaaa ctgggtgcgg ggctattgat gaattcatcc ncagtaaatt 480
tggatatnac aaaatataac tcgattgcat ttggatgatg gaatactaaa tctggcaaaa 540
gtaactttgg agctactagt aacctctctt ttgagatgc aaaatcttct tttaggggtt 600
cttattctct actttacgga tattggagca taacggga 638

```

```

<210> 17
<211> 286
<212> DNA
<213> Homo sapiens

```

```

<400> 17
actgatggat gtcgccggag gcgaggggcc ttatctgatg ctcggtgcc tgttcgtgat 60
gtgcgcggcg attgggctgt ttatctcaaa caccgccacg gcggtgctga tggcgccat 120
tgccttagcg gcggcgaagt caatgggcgt ctacccctat ccttttgcca tgggtggggc 180
gatggcggct tcggcggcgt ttatgacccc ggtctcctcg ccggttaaca ccctgggtgct 240
tggccctggc aagtactcat ttagcgattt tgtcaaaaata ggcgtg 286

```

```

<210> 18
<211> 262
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 184, 234, 240
<223> n = A,T,C or G

```

```

<400> 18
tcggtcatag cagcccttc ttctcaattt catctgtcac taccctgggtg tagtatctca 60
tagccttaca tttttatagc ctctccctg gtctgtcttt tgattttcct gcctgtaatc 120
catatcacac ataactgcaa gtaaacattt ctaaagtgtg gttatgctca tgtcactcct 180
gtgncaagaa atagtttcca ttaccgtctt aataaaaattc ggatttggtc ttttctattn 240
tcactcttca cctatgaccg aa 262

```

```

<210> 19
<211> 261
<212> DNA
<213> Homo sapiens

```

```

<400> 19
tcggtcatag caaagccagt ggtttgagct ctctactgtg taaactccta aaccaaggcc 60
atztatgata aatgggtggc ggatttttat tataaacatg taccatgca aatttcctat 120
aactctgaga tatattcttc tacatttaaa caataaaaat aatctatttt taaaagccta 180
atgtgcgtag ttaggtaaga gtgtttaatg agagggtata aggtataaat caccagtcaa 240
cgtttctctg cctatgaccg a 261

```

```

<210> 20
<211> 294
<212> DNA
<213> Homo sapiens

```

```

<220>

```



```

ttacaacgag gggaaactcc gtctctacaa aaattaaata attagccagg tgtgggtggtg 60
tgcacctgta atcccagcta cttgggcggc tgagacacaa gaaccaccta aatgtggggag 120
ggtcaagggt gcatgagtca tgatcgcgcc actgcactcc agcctgggtg acagactgag 180
accctgcctc aaaagaaaaa gaataggaag ttcagaaacc ctgggtgtgg ngcccagcaa 240
tctgcattta aacaatccct gcaggcaatg ctgatgcagc ctaagttcaa gagctgctgt 300
tctggaggca gnagtaaggg cttccatcca gcatcacggn caacactgca aaagcacctg 360
tcctcgttgg ta 372

```

```

<210> 27
<211> 477
<212> DNA
<213> Homo sapiens

```

```

<400> 27
ttctgtccac atctacaagt tttatttatt ttgtgggttt tcagggtgac taagtttttc 60
cctacattga aaagagaagt tgctaaaagg tgcacaggaa atcatttttt taagtgaata 120
tgataatatg ggtccgtgct taatacaact gagacatatt tgttctctgt ttttttagag 180
tcacctctta aagtccaatc ccacaatggt gaaaaaaaaa tagaaagtat ttgttctacc 240
tttaaggaga ctgcagggat tctccttgaa aacggagtat ggaatcaatc ttaaataaat 300
atgaaattgg ttggtcttct gggataagaa attcccaact cagtgtgctg aaattcacct 360
gacttttttt gggaaaaaat agtcgaaaat gtcaatttgg tccataaaaat acatgttact 420
attaaaagat atttaagac aaattctttc agagctctaa gattgggtgtg gacagaa 477

```

```

<210> 28
<211> 438
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 4, 16, 30, 255, 413
<223> n = A,T,C or G

```

```

<400> 28
tctncaacct cttgantgtc aaaaaccttn taggctatct ctaaaagctg actggatttc 60
attccagcaa aatccctcta gtttttggag tttcctttta ctatctgggg ctgcctgagc 120
cacaaatgcc aaattaagag catggctatt ttccggggct gacagggtcaa aagggggtgta 180
aatccgataa gcctcctgga ggtgctctaa aaacactcct ggtgactcat catgcccttg 240
gacgacttca atcgnccttag acaagtttat aggtttctgg gcagctccct gaatacccac 300
gaggagatac cgggtggaaat cgtcaaaaagt tctccctcca cttgagaaat ttgggtccca 360
attagggtccc aattgggtct ctaatcacta ttctctctagc ttctctctcc ggnctattgg 420
ttgatgtgag gttgaaga 438

```

```

<210> 29
<211> 620
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 391, 481, 483, 490, 497, 510, 527, 532, 540, 545, 593, 612
<223> n = A,T,C or G

```

```

<400> 29

```

```

aagagggtac cagccccaag ccttgacaac ttccataggg tgtcaagcct gtgggtgcac 60
agaagtcaaa aattgagttt tgggatcctc agcctagatt tcagaggata taaagaaaca 120
cctaacacct agatattcag acaaaagttt actacagggg tgaagctttc acggaacc 180
tctactagga aagtacagaa gagaaatgtg ggtttggagc ccccaaacag aatccccctc 240
agaacactgc ctaatgaaac tgtgagaaga tggccactgt catccagaca ccagaatgat 300
agaccaccca aaaacttatg ccatattgcc tataaaacct acagacactc aatgccagcc 360
ccatgaaaaa aaaactgaga agaagactgt nccctacaat gccaccggag cagaactgcc 420
ccaggccatg gaagcacagc tcttatatca atgtgacctg gatgttgaga catggaatcc 480
nangaaatcn ttttaanact tccacggttn aatgactgcc ctattanatt cngaacttan 540
atcnggcct gtgacctctt tgctttggcc attccccctt tttggaatgg cnttttttt 600
cccatgcctg tncctcttta

```

<210> 30

<211> 100

<212> DNA

<213> Homo sapiens

<400> 30

```

ttacaacgag ggggtcaatg tcataaatgt cacaataaaa caatctcttc tttttttttt 60
tttttttttt tttttttttt tttttttttt tttttttttt

```

100

<210> 31

<211> 762

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 626, 652, 662, 715, 736

<223> n = A,T,C or G

<400> 31

```

tagtctatgc gccggacaga gcagaattaa attggaagtt gccctccgga ctttctaccc 60
acactcttcc tgaaaagaga aagaaaagag gcaggaaaga ggtaggatt tcattttcaa 120
gagtcagcta attaggagag cagagtttag acagcagtag gcaccccatg atacaaacca 180
tggacaaagt ccctgtttag taactgccag acatgatcct gctcagggtt tgaaatctct 240
ctgccataa aagatggaga gcaggagtgc catccacatc aacacgtgtc caagaaagag 300
tctcaggag acaagggtat caaaaaacaa gattcttaat gggaaggaaa tcaaaccaaa 360
aaattagatt tttctctaca tatatataat atacagatat ttaacacatt attccagagg 420
tggctccagt ccttggggct tgagagatgg tgaaaacttt tgttccacat taacttctgc 480
totcaaattc tgaagtatat cagaatggga caggcaatgt tttgctccac actggggcac 540
agacccaaat gggtctgtgc ccgaagaaga gaagcccgaag agacatgaag gatgcttaag 600
ggggggttgg aaagccaaat tgggtantatc ttttctcct gctgtgttc cngaagtctc 660
cnotgaagga attcttaaaa ccctttgtga ggaaatgcc ccttaccatg acaantggtc 720
ccattgcttt taggngatg gaaacaccaa gggttttgat cc

```

762

<210> 32

<211> 276

<212> DNA

<213> Homo sapiens

<400> 32

```

tagtctatgc gtgtattaac ctccccctcc tcagtaacaa ccaaagaggc aggagctgtt 60
attaccaacc caattttaca gatgcatcaa taatgacaga gaagtgaagt gacttgcgca 120

```

```

cacaaccagt aaattggcag agtcagattt gaatccatgg agtctgggtct gcactttcaa 180
tcaccgaata cccctttctaa gaaacgtgtg ctgaatgagt gcatggataa atcagtgtct 240
actcaacatc tttgcctaga tatcccgcat agacta 276

```

```

<210> 33
<211> 477
<212> DNA
<213> Homo sapiens

```

```

<400> 33
tagtagttgc caaatatttg aaaattttacc cagaagtgat tgaaaacttt ttggaaacaa 60
aaacaaataa agccaaaagg taaaataaaa atatctttgc actctcgta ttacctatcc 120
ataacttttt caccgtaagc tctcctgctt gttagtgtag tgtgggtata ttaacttttt 180
tagttattat tttttattca cttttccact agaaagtcac tattgattta gcacacatgt 240
tgatctcatt tcatTTTTTt tttttatagg caaaatttga tgctatgcaa caaaaataact 300
caagcccatt atctTTTTTt cccccgaaat ctgaaaattg caggggacag agggaagtta 360
tcccatataa aaattgtaaa tatgttcagt ttatgtttta aaatgcacaa aacataagaa 420
aattgtgttt acttgagctg ctgattgtaa gcagttttat ctcaggggca actacta 477

```

```

<210> 34
<211> 631
<212> DNA
<213> Homo sapiens

```

```

<400> 34
tagtagttgc caattcagat gatcagaaat gctgctttcc tcagcattgt cttgttaaac 60
cgcattgccat ttggaacttt ggcagtgaga agccaaaagg aagaggtgaa tgacatatat 120
atatatatat attcaatgaa agtaaaatgt atatgctcat atactttcta gttatcagaa 180
tgagttaagc tttatgccat tgggctgctg catattttta tcagaagata aaagaaaatc 240
tgggcatttt tagaatgtga tacatgtttt tttaaaactg ttaaataatta tttcgatatt 300
tgtctaagaa ccggaatgtt cttaaaattt actaaaacag tattgtttga ggaagagaaa 360
actgtactgt ttgccattat tacagtcgta caagtgcacg tcaagtcacc cactctctca 420
ggcatcagta tccacctcat agctttacac attttgacgg ggaatattgc agcatcctca 480
ggcctgacat ctgggaaagg ctcagatcca cctactgctc cttgctcggt gatttgtttt 540
aaaatattgt gcttggtgtc acttttaagc cacagccctg cctaaaagcc agcagagaac 600
agaacccgca ccattctata ggcaactact a 631

```

```

<210> 35
<211> 578
<212> DNA
<213> Homo sapiens

```

```

<400> 35
tagtagttgc catcccatat tacagaaggc totgtataca tgacttattt ggaagtgatc 60
tgttttctct ccaaaccat ttatcgtaat ttcaccagtc ttggatcaat cttggtttcc 120
actgatacca tgaaacctac ttggagcaga cattgcacag ttttctgtgg taaaaactaa 180
aggtttattt gctaagctgt catcttatgc ttagtatttt ttttttacag tggggaattg 240
ctgagattac attttgttat tcattagata ctttgggata acttgacact gtcttctttt 300
tttcgctttt aattgctatc atcatgcttt tgaaacaaga acacattagt cctcaagtat 360
tacataagct tgcttgttac gcttggtggt ttaaaggact atctttggcc tcaggttcac 420
aagaatgggc aaagtgtttc cttatgttct gtagttctca ataaaagatt gccaggggcc 480
gggtactgtg gctcgactg taatccagc actttgggaa gctgaggctg gcggatcatg 540
ttagggcagc tggttcgaaac cagcctgggc aactacta 578

```

<210> 36
 <211> 583
 <212> DNA
 <213> Homo sapiens

<400> 36
 tagtagttgc ctgtaatccc agcaactcag gaggctgggg caggagaatc agttgaacct 60
 gggaggcgaga agttgtaatt agcaaagatc gcaccattgc acttcagcct gggcaacaag 120
 agtgagattc catctcaaaa acaaaaaaaaa gaaaaagaaa agaaaaggaa aaaacgtata 180
 aaccagcca aaacaaaatg atcattcttt taataagcaa gactaattta atgtgtttat 240
 ttaatcaaag cagttgaatc ttctgagtta ttggtgaaaa taccatgta gttaatttag 300
 ggttcttact tgggtgaacg tttgatgttc acagggttata aaatgggtta caaggaaaat 360
 gatgcataaa gaatcttata aactactaaa aataaataaa atataaatgg atagggtgta 420
 tggatggagt ttttgtgtaa tttaaaatct tgaagtcatt ttggatgctc attgggtgtc 480
 tggtaatttc cattaggaaa aggttatgat atggggaaac tgtttctgga aattgcggaa 540
 tgtttctcat ctgtaaaatg ctagtatctc agggcaacta cta 583

<210> 37
 <211> 716
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> 15, 669, 673, 678, 686, 704
 <223> n = A,T,C or G

<400> 37
 gatctactag toatntggat tctatccatg gcagctaagc ctttctgaat ggattctact 60
 gctttcttgt tctttaatcc agacccttat atatgtttat gtccacaggc agggcaatgt 120
 ttagtgaaaa caattctaaa ttttttattt tgcattttca tgctaatttc cgtcacactc 180
 cagcaggctt cctgggagaa taaggagaaa tacagctaaa gacattgtcc ctgcttactt 240
 acagcctaatt ggtatgcaaa accacttcaa taaagtaaca ggaaaagtac taaccaggta 300
 gaatggacca aaactgatat agaaaaatca gaggaagaga ggaacaaata tttactgagt 360
 cctagaatgt acaaggcttt ttaattacat attttatgta aggcctgcaa aaaacagggtg 420
 agtaatcaac atttgtccca ttttacatat aaggaaactg aagcttaaat tgaataattt 480
 aatgcataga ttttatagtt agaccatgtt cagggtcccta tgttatactt actagctgta 540
 tgaatatgag aaaataattt tgttattttc ttggcatcag tatttttcac tgcaaaaataa 600
 agctaaagtt atttagcaaa cagtcagcat agtgcctgat acatagtagg tgctccaaac 660
 atgattacnc tantattnng tattanaaaa atccaatata ggcntggata aaaccg 716

<210> 38
 <211> 688
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> 260
 <223> n = A,T,C or G

<400> 38
 ttctgtccac atatcatccc actttaattg ttaatcagca aaactttcaa tgaaaaatca 60
 tocattttta ccaggatcac accaggaaac tgaaggtgta tttttttta ccttaaaaaa 120

```
<210> 39
<211> 585
<212> DNA
<213> Homo sapiens
```

<400> 39						
tagtagttgc	cgcnnaccta	aaanttggaa	agcatgatgt	ctaggaaaca	tantaaaata	60
gggtatgcct	atgtgctaca	gagagatgtt	agcattttaa	gtgcatantt	ttatgtattt	120
tgacaaatgc	atatncctct	ataatccaca	actgattacg	aagctattac	aattaaaaag	180
tttggccggg	cgtggtgggc	ggtggctgac	gcctgtaatc	ccagcacttt	gggaggccga	240
ggcacgcgga	tcacgaggtc	gggagttcaa	gaccatcctg	gctaacacgg	tgaaggtcca	300
tctctactaa	aaatacghaa	aaattacccc	ggcgtggtgg	cgggcgcctg	tagtcccagc	360
tactccggag	gctgaggcac	gagaattggc	tgaacccagg	acacggagct	tgcaggtgtc	420
caacatcacg	tcactgcctt	ccagcctggg	ggacaggaac	aagantcccc	tcctcanaaa	480
agaaaaatac	tactnatant	ttnactttta	ttttaantta	cacagaactn	cctcttggtg	540
cccccttacc	attcatctca	cccacctctt	atagggcacn	notaa		585

<400> 40						
tctgtccaca	ccaatcttag	aagctctgaa	aagaatttgt	ctttaaatat	cttttaatat	60
taacatgtat	tttatggacc	aaattgacat	tttcgactgt	tttttccaaa	aaagtcaggt	120
gaatttcagc	acactgagtt	gggaatttct	tatcccagaa	gaccaaccaa	tttcatattt	180
atttaagatt	gattccatac	tccgttttca	aggagaatcc	ctgcagttct	cttaaaggta	240
gaacaaaatac	ttcctatttt	tttttcacca	ttgtgggatt	ggactttaag	aggtgactct	300
aaaaaaacag	agaacaaata	tgtctcagtt	gtattaaagca	cggaccataa	ttatcatatt	360
cacttaaaaa	aatgattttcc	tgtgcacctt	ttggcaactt	ctcttttcaa	tgtagggaaa	420
aacttagtca	ccctgaaaac	ccacaaaata	aataaaaactt	gtagatgtgg	acaga	475

```
<210> 41
<211> 423
<212> DNA
<213> Homo sapiens
```

```

<400> 41
taagagggta catcgggtaa gaacgtaggc acatctagag cttagagaag tctggggtag 60
gaaaaaaatc taagtattta taagggtata ggtaacattt aaaagtaggg ctactgaca 120
ttatttagaa agaacacata cggagagata agggcaaagg actaagacca gaggaacact 180
aatatttagt gatcacttcc attcttggtt aaaatagtaa cttttaagtt agcttcaagg 240
aagatttttg gccatgatta gttgtcaaaa gtttagttctc ttgggtttat attactaatt 300
ttgttttaag atccttggtt gtgctttaat aaagtcatgt tatatcaaac gctctaaaac 360
attgtagcat gttaaatgtc acaatatact taccatttgt tgtatatggc tgtaccctct 420
cta 423

```

```

<210> 42
<211> 527
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 470, 475, 515, 522
<223> n = A,T,C or G

```

```

<400> 42
tctcctaggc taatgtgtgt gtttctgtaa aagtaaaaag ttaaaaattt taaaaataga 60
aaaaagctta tagaataaga atatgaagaa agaaaatatt ttgtacatt tgcacaatga 120
gtttatgttt taagctaagt gttattacaa aagagccaaa aagggtttta aaattaaaac 180
gtttgtaaag ttacagtacc cttatgttaa ttataattg aagaaagaaa aacttttttt 240
tataaatgta gtgtagccta agcatacagt atttataaag tctggcagtg ttcaataatg 300
tcctaggcct tcacattcac tctactgactc acccagagca acttccagtc ctgtaagctc 360
cattcgtggg aagtgcccta tacagggtgca ccatttattt tacagtattt ttactgtacc 420
ttctctatgt ttccatatgt ttcgatatac aaataccact gggttactatn gcccnacagg 480
taattccagt aacacggcct gtatacgtct ggtancccta gngaaga 527

```

```

<210> 43
<211> 331
<212> DNA
<213> Homo sapiens

```

```

<400> 43
tcttcaacct cgtaggacaa ctctcatatg cctgggcact atttttaggt tactaccttg 60
gctgcccttc ttttaagaaaa aaaaaagaag aaaaaagaac ttttccacaa gtttctcttc 120
ctctagtgtg aaaattagag aaatcatgtt ttttaatttg tggtatttca gatcacaat 180
tcaaacactt gtaaacatta agcttctgtt caatcccctg ggaagaggat tcattctgat 240
atttacgggt caaaagaagt tgtaatatgt tgcttgggaa acagagaacc agttattaac 300
ttcctactac tattatataa taaataataa c 331

```

```

<210> 44
<211> 592
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 473
<223> n = A,T,C or G

```

```

<400> 44
ggcttagtag ttgccaggca aaatarcgtt gattctcctc aggagccacc cccaacaccc 60
ctgtttgctt ctagacctat acctagacta aagtcaccagc agaccacctag aggtgagggtt 120
cagagtgacc cttgaggaga tgtgctacac tagaaaagaa ctgcttgagt tttctaattt 180
atataagcag aaatctggag aagagtcata ggaatggata ttaaggggtgt gagataatgg 240
cggaaggaat atagagttgg atcaggctgg acttattgat ttgaaccacac taagtagaga 300
ttctgctttt gatgttgcag ctcaggaggat taaaaaagggt tttaatgggtt ctaatagttt 360
atttgcttgg ttagctgaaa tatggataaa agatggccca ctgtgagcaa gctggaaaatg 420
cctgatctct ctcagtttaa tgtagaggaa gggatccaaa agtttaggga ganttgatg 480
ctggraktgg attggtcact ttgrgaccta ccwctccag ctgggagggt ccagaagata 540
cacccttgac caacgctttg cgaaatggat ttgtgatggc ggcaactact aa 592

```

```

<210> 45
<211> 567
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 522, 561, 566
<223> n = A,T,C or G

```

```

<400> 45
ggcttagtag ttgccattgc gagtgccttc tcaacgagcg ttgaacatgg cggattgtct 60
agattcaacg gatttgagtt ttaccagcaa agcgaaccaa gcgcggccca gagaattatg 120
ggttggttgg ctttgaaaag atggaaatcc ttagggccta gtcagaaaag ccttcttgca 180
gaacagttgg ttctcgggcg aacgctcatc aagatgccca ttggaaaggc tagcgtgtat 240
ttgggagagc ctgatagcgt gtcttctgat gatgtttgtg cttggacagt gacaaaagat 300
atgcaaagca agtccgaact agacgtcaag cttcgtgagc aaattattgt agactcctac 360
ttatactgtg aggaatgata gccaaagggtg gggactttta gactaagggtg gtttgacttt 420
gcgcgatga tcccaggcag aaagamctga tcgctagttt tatacgggca actactaagc 480
cgaattccag cacactggcg gccgttacta attggatccg anctcgggtac cagcttgatg 540
catascctga gttwtctata ntgtcnc 567

```

```

<210> 46
<211> 908
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 21, 23, 24, 27, 29, 34
<223> n = A,T,C or G

```

```

<400> 46
gagcgaaaga ccgagggcag ngnttangng cgangaagcg gagagggcca aaaagcaacc 60
gctttccccc gggggtgccg attcattaag gcaggtggag gacaggtttc ccgatggaag 120
goggcagggg cgcaagcaat taatgtgagt aggccattca ttagcaccocg ggcttaacat 180
ttaagcttcg ggttggtatg tgggtgggaat tgtgagcgga taacaatttc acacaggaaa 240
cagctatgac catgattacg ccaagctatt taggtgacat tatagaataa ctcaagttat 300
gcatcaagct tggtagcgag ttccgatcca ctagtaacgg ccgocagtggt gtggaattcg 360
gcttagtagt tgccgaccat ggagtgcctac ctaggctaga atacctgagy tccctccctag 420
cctcactcac attaaattgt atcttttcta cattagatgt cctcagcgcc ttattttctgc 480
tggacwatcg ataaattaat cctgatagga tgatagcagc agattaatta ctgagagtat 540

```

```
<210> 47
<211> 480
<212> DNA
<213> Homo sapiens
```

<400> 47						
tgccaacaag	gaaagtttta	aattttcccct	tgaggattct	tgggtgatcat	caaatttcagt	60
ggtttttaag	gttgttttct	gtcaataaac	tctaacttta	agccaaacag	tatatggaag	120
cacagataka	atattacaca	gataaaaagag	gagttgatct	aaagtaraga	tagttggggg	180
ctttaatttc	tggaacctag	gtctcccat	cttcttctgt	gctgaggaac	ttcttggaag	240
cggggattct	aaagttcttt	ggaagacagt	ttgaaaacca	ccatgttggt	ctcagtacct	300
ttatttttaa	aaagtaggtg	aacattttga	gagagaaaag	ggcttggttg	agatgaagtc	360
ccccccccc	cttttttttt	ttttagctga	aatagatacc	ctatgttnaa	rgaarggatt	420
attatttacc	atgccaytar	scacatgctc	tttgatgggc	nytcctstac	cctccttaag	480

<400> 48									
aagagggtac	cgagtggaat	ttccgcttca	ctagtctggt	gtggctagtc	ggtttcgtgg	60			
tggccaacat	tacgaacttc	caactcaacc	gttcttggac	gttcaagcgg	gagtaccggc	120			
gaggatgggtg	gcgtgaattc	tggcctttct	ttgccgtggg	atcggtagcc	gccatcatcg	180			
gtatgtttat	caagatcttc	tttactaacc	cgacctctcc	gatttaacctg	cccagagccgt	240			
ggtttaacga	ggggaggggg	atccagtcac	gcgagtactg	gtcccagatc	ttcgccatcg	300			
tcgtgacaat	gcctatcaac	ttcgtcgtca	ataagttgtg	gaccttcoga	acggtgaaag	360			
actccgaaaa	cgctccggtg	ctcgtgtgcg	gtgactccca	aaatcttgat	aacaacaagg	420			
taaccgaatc	gcgctaagga	accccgcat	ctcgggtact	ctgcatatgc	gtacccctta	480			
agccgaattc	cagcacactg	gcggccgtta	ctaattggat	ccgaactccg	taaccaagcc	540			
tgatgcgtaa	cttgagttat	tctatagtgt	ccctaaaata	acctggcggt	a	591			

```
<400> 49
aagagggtac ctgccttgaa atttaaattgt ctaaggaaar tgggagatga ttaagagttg 60
gtgtggcyta gtcacaccaa aatgtatttta ttacatcctg ctccctttcta gttgacagga 120
```


<220>
 <221> misc_feature
 <222> 135, 143, 179
 <223> n = A,T,C or G

<400> 53
 ttccgggtgat gcctcctcag gctacagtga agactggatt acagaaaggt gccagcgcaga 60
 ttccagattc ctgtaaacct ctaaagaaaa ggagtcgcgc ctcaactgat gtagaaatga 120
 ctagtccagc atacngagac acntctgact ccgattctag aggactgagt gacctgcan 179

<210> 54
 <211> 112
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 31, 49, 54, 55, 75, 91, 107
 <223> n = A,T,C or G

<400> 54
 ttccgggtgat gcctcctcag gctacatcat natagaagca aagtagaana atcnngtttg 60
 tgcattttcc cacanacaaa attcaaata ntggaagaaa ttggganagt at 112

<210> 55
 <211> 225
 <212> DNA
 <213> Homo sapiens

<400> 55
 tgagcttccg cttctgacaa ctcaatagat aatcaaagga caactttaac agggattcac 60
 aaaggagtat atccaaatgc caataaacat ataaaaagga attcagcttc atcatcatca 120
 gaagwatgca aattaaaacc ataataagaa accactatgt ccactagaa tagataaaat 180
 cttaaaagac tggtaaaacc aagtgttggt aaggcaagag gagca 225

<210> 56
 <211> 175
 <212> DNA
 <213> Homo sapiens

<400> 56
 gctcctcttg ccttaccac acattctcaa aaacctgtta gagtcctaag cattctcctg 60
 ttagtatttg gattttaccc ctgtcctata aagatgttat gtacaaaaa tgaagtggag 120
 ggccataccc tgagggaggg gagggatctc tagtgttgtc agaagcggaa gctca 175

<210> 57
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 57
 agccatttac caccatgga tgaatggatt ttgtaattct agctgttgta ttttgtgaat 60
 ttgttaattt tgttgttttt ctgtgaaaca catacattgg atatgggagg taaaggagtg 120

tcccagttgc tcttggtcac tccctttata gccattactg tcttgtttct tgtaactcag 180
gttagggtttt ggtctctctt gctccactgc aaaaaaaaaa aaa 223

<210> 58
<211> 211
<212> DNA
<213> Homo sapiens

<400> 58
gttcgaaggt gaacgtgtag gtagcggatc tcacaactgg ggaactgtca aagacgaatt 60
aactgacttg gatcaatcaa atgtgactga ggaaacacct gaaggtgaag aacatcatcc 120
agtggcagac actgaaaata aggagaatga agttgaagag gtaaaagagg aggggtccaaa 180
agagatgact ttggatgggt ggtaaatggc t 211

<210> 59
<211> 208
<212> DNA
<213> Homo sapiens

<400> 59
gctcctcttg ccttaccac tttgcaccca tcatcaacca tgtggccagg tttgcagccc 60
agggtgcaca tcaggggact gcctcgcaat acttcatgct gttgctgctg actgatggtg 120
ctgtgacgga tgtggaagcc acacgtgagg ctgtgggtgcg tgctcgaac ctgccccatgt 180
cagtgatcat tatgggtggg aaatggct 208

<210> 60
<211> 171
<212> DNA
<213> Homo sapiens

<400> 60
agccatttac caccataact aaattctagt tcaaactcca acttcttcca taaaacatct 60
aaccactgac accagttggc aatagcttct tccttcttta acctcttaga gtatttatgg 120
tcaatgccac acatttctgc aactgaataa agttggtgaag gcaagaggag c 171

<210> 61
<211> 134
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 37, 70, 80, 86, 88, 97, 117, 123, 131
<223> n = A,T,C or G

<400> 61
cggtgatgc ctctcaggc tttggtgtgt ccaactnact cactggcctc ttctccagca 60
actggtgaan atgtctcan gaaaancncc acacgngct caggggtgggg tgggaancat 120
canaatcatc nggc 134

<210> 62
<211> 145
<212> DNA
<213> Homo sapiens

<400> 62
agaggggtaca tatgcaacag tatataaagg aagaagtgca ctgagaggaa ctccatcaag 60
gccatttaat caataagtga tagagtcaag gctcaaccca ggtgtgacgg attccaggtc 120
ccaagctcct tactggtacc ctctt 145

<210> 63
<211> 297
<212> DNA
<213> Homo sapiens

<400> 63
tgcaactgaga ggaattcaaa gggtttatgc caaagaacaa accagtcctc tgcagcctaa 60
ctcatttggtt tttgggctgc gaagccatgt agagggcgat caggcagtag atggtccttc 120
ccacagtcag cgccatggtg gtccggtaaa gcatttggtc aggcaggcct cgtttcagggt 180
agacgggcac acatcagctt tctggaaaaa cttttgtagc tctggagctt tgtttttccc 240
agcataatca tacactgtgg aatcggaggt cagtttagtt ggtaaggcaa gaggagc 297

<210> 64
<211> 300
<212> DNA
<213> Homo sapiens

<400> 64
gcactgagag gaacttccaa tactatgttg aataggagtg gtgagagagg gcattccttgt 60
cttgtgccgg ttttcaaagg gaatgcttcc agcttttgcc cattcagtat aatattaaag 120
aatgttttac cattttctgt cttgcctgtt tttctgtgtt tttgttggtc tcttcattct 180
ccatttttag gcctttacat gtttaggaata tatttctttt aatgatactt caccttttgt 240
atcttttgtg agactctact catagtgtga taagcactgg gttggtaagg caagaggagc 300

<210> 65
<211> 203
<212> DNA
<213> Homo sapiens

<400> 65
gtcctctcttg ccttaccaac tcacccagta tgtcagcaat tttatcrgct ttacctacga 60
aacagcctgt atccaaacac ttaacacact cacctgaaaa gttcaggcaa caatcgctt 120
ctcatgggtc tctctgctcc agttctgaac ctttctcttt tcctagaaca tgcatttarg 180
tcgatagaag ttctctctcag tgc 203

<210> 66
<211> 344
<212> DNA
<213> Homo sapiens

<400> 66
tacgggggacc cctgcattga gaaagcgaga ctcaactctga agctgaaatg ctgttgccct 60
tgcagtgtctg gtagcaggag ttctgtgctt tgtgggctaa ggctcctgga tgaccctga 120
catggagaag gcagagttgt gtgccccttc tcatggcctc gtcaaggcat catggactgc 180
cacacacaaa atgccgtttt tattaacgac atgaaattga aggagagaa acaattcact 240
gatgtggctc gtaaccatgg atatggtcac atacagaggt gtgattatgt aaaggttaat 300
tccaccacc tcatgtggaa actagcctca atgcaggggt ccca 344

<222> 66, 160, 204, 246, 267, 334, 339, 342

<223> n = A,T,C or G

<400> 71

```
cgtttagggtc tctatccact gctaaaccat acacctgggt aaacagggac catttaacat 60
tccanctaa atatgccaaag tgacttcaca tgtttatctt aaagatgtcc aaaacgcaac 120
tgattttctc ccctaaacct gtgatgggtg gatgattaan cctgagtggc ctacagcaag 180
ttaagtgcaa ggtgctaaat gaangtgacc tgagatacag catctacaag gcagtacctc 240
tcaacncagg gcaactttgc ttctcanagg gcatttagca gtgtctgaag taattttctgt 300
attacaactc acggggcgagg ggggtgaatat ctantggana gnagacccta acg 353
```

<210> 72

<211> 343

<212> DNA

<213> Homo sapiens

<400> 72

```
gcactgagag gaacttccaa tacyatkatc agagtgaaca rgcarccyac agaacaggag 60
aaaatgttyg caatctctcc atctgacaaa aggctaatat ccagawtcta awaggaactt 120
aaacaaatth atgagaaaag aacaracaac ctcaawcaaaa agtgggtgaa ggawatgcts 180
aaargaagac atytattcag ccagtaaaaca yatgaaaaaa aggtcatsa tcaactgawca 240
ttagagaaat gcaaatcaaa accacaatga gataccatct yayrccagtt agaaygggtga 300
tcattaaaaar stcaggaaac aacagatgct ggacaagggtg tca 343
```

<210> 73

<211> 321

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 288

<223> n = A,T,C or G

<400> 73

```
gcactgagag gaacttcaga gagagagaga gaggccacc ctgtacttgg ggagagaaac 60
agaagggtgag aaagtctttg gttctgaagc agcttctaag atcttttcat ttgcttcatt 120
tcaaagttcc catgctgcc aagtgccatc ctttggggta ctgttttctg agctccagtg 180
ataactcatt tatacaaggg agatacccag aaaaaaagtg agcaaactctt aaaaagggtg 240
cttgagttca gccttaaata ccatcttgaa atgacacaga gaaagaanga tggtgggtgg 300
gagtggtatg agaccctaac g 321
```

<210> 74

<211> 321

<212> DNA

<213> Homo sapiens

<400> 74

```
gcactgagag gaacttcaga gagagagaga gaggccacc ctgtacttgg ggagagaaac 60
agaagggtgag aaagtctttg gttctgaagc agcttctaag atcttttcat ttgcttcatt 120
tcaaagttcc catgctgcc aagtgccatc ctttggggta ctgttttctg agctccagtg 180
ataactcatt tatacaaggg agatacccag aaaaaaagtg agcaaactctt aaaaagggtg 240
cttgagttca gyccttaaata ccatcttgaa atgamacaga gaaagaagga tggtgggtgg 300
gagtggtatg agaccctaac g 321
```

<210> 75
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 75
 gcactgagag gaacttccac atgcactgag aaatgcatgt tcacaaggac tgaagtcttg 60
 aactcagttt ctcagttcca atcctgattc aggtgtttac cagctacaca accttaagca 120
 agtcagataa ccttagcttc ctcatatgca aaatgagaat gaaaagtact catcgctgaa 180
 ttgttttgag gattagaaaa acatctggca tgcagtagaa attcaattag tattcatttt 240
 cattcttcta aattaaacaa ataggatttt tagtggtgga acttcagaca ccagaaatgg 300
 gagtggatag agaccct 317

<210> 76
 <211> 244
 <212> DNA
 <213> Homo sapiens

<400> 76
 cgttagggtc tctatccact cccactactg atcaaactct atttatttaa ttatTTTTat 60
 catactttta gttctgggat acacgtgcag catgcgagcag tttgttgcat aggtatacac 120
 ttgccatggt ggtttctgtgc acccatcagt ccatcatcta cattaggtat ttctcctaatt 180
 getatccctc ccttagcccc ttacaccccc aacaggctct agtgtgtgaa gttcctctca 240
 gtgc 244

<210> 77
 <211> 254
 <212> DNA
 <213> Homo sapiens

<400> 77
 cgttagggtc tctatccact gaaatctgaa gcacaggagg aagagaagca gtyctagtga 60
 gatggcaagt tcwtttacca cactctttta catttygttt agttttaacc tttatttatg 120
 gataataaag gttaatatta ataatgattt attttaaggc attcccraat ttgcataatt 180
 ctcttttttg agataccctt ttatctccag tgcaagtctg gatcaaagtg atasamagaa 240
 gttcctctca gtgc 254

<210> 78
 <211> 355
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 69, 87, 186, 192, 220, 227, 251, 278, 339, 346, 350
 <223> n = A,T,C or G

<400> 78
 ttcgatacag gcaaacatga actgcaggag ggtggtgacg atcatgatgt tgccgatggt 60
 coggatggnc acgaagacgc actggancac gtgcttacgt ccttttgctc tgttgatggc 120
 cctgagggga cgcaggaccc ttatgaccct cagaatcttc acaacgggag atggcactgg 180
 attgantccc antgacacca gagacacccc aaccaccagn atatcantat attgatgtag 240
 ttctgttaga nggccccctt gtggaggaaa gctccatnag ttggtcatct tcaacaggat 300

ctcaacagtt tccgatggct gtgatgggca tagtcatant taacntgtn tcgaa 355

<210> 79
 <211> 406
 <212> DNA
 <213> Homo sapiens

<400> 79
 taagagggtg ccagcagaaa ggtagtagtc atcagatagc atcttatacg agtaatatgc 60
 ctgctatttg aagtgttaatt gagaaggaaa attttagcgt gtcactgac ctgcctgtag 120
 cccagtgac agctaggatg tgcattctcc agccatcaag agactgagtc aagttgttcc 180
 ttaagtcaga acagcagact cagctctgac attctgattc gaatgacact gttcaggaat 240
 cggaatcctg tcgattagac tggacagcgt gtggcaagtg aatttgctg taacaagcca 300
 gatTTTTTaa aatttatatt gtaaataatg tgtgtgtgtg tgtgtgtata tatatatata 360
 tgtacagtta tctaagttaa tttaaaagtt gtttgggtacc ctctta 406

<210> 80
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 80
 tttttttttt tttactcggc tcagtctaatt cttttttgta gtcactcata ggccagactt 60
 agggctagga tgatgattaa taagagggat gacataacta ttagtggcag gttagttgtt 120
 tgtagggctc atggtagggg taaaaggagg gcaatttcta gatcaaataa taagaaggta 180
 atagctacta agaagaattt tatggagaaa gggacgcggg cgggggatat agggtcgaag 240
 ccgcactcgt aaggggtgga tttttctatg tagccgttga gttgtggtag tcaaaatgta 300
 ataattatta gtagtaagcc taggaga 327

<210> 81
 <211> 318
 <212> DNA
 <213> Homo sapiens

<400> 81
 tagtctatgc ggttgattcg gcaatccatt atttgctgga ttttgtcatg tgTTTTGCCA 60
 attgcattca taatttatta tgcatttatg cttgtatctc ctaagtcatg gtatataatc 120
 catgcttttt atgttttgtc tgacataaac tcttatcaga gccctttgca cacagggatt 180
 caataaatat taacacagtc tacatttatt tggatgaat tgcataatct ctgtactgaa 240
 agcacattaa gtaacaaagg caagtgagaa gaatgaaaag cactactcac aacagttatc 300
 atgattgcgc atagacta 318

<210> 82
 <211> 338
 <212> DNA
 <213> Homo sapiens

<400> 82
 ttttcaacct ctactccac taatagcttt ttgatgactt ctagcaagcc tcgctaacct 60
 cgccttacc cccactatta acctactggg agaactctct gtgctagtaa ccacgttctc 120
 ctgatcaa atcactctcc tacttacagg actcaacata ctagtcacag cctatactc 180
 cctctacata tttaccacaa cacaatggg ctactcacc caccacatta acaacataaa 240
 accctcatc acacgagaaa acaccctcat gttcatacac ctatccccca ttctcctcct 300
 atccctcaac cccgacatca ttaccgggtt ttctctct 338

<400> 87
ctcctaggct 10

<210> 88
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 88
agtagttgcc 10

<210> 89
<211> 11
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 89
ttccggttatg c 11

<210> 90
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 90
tggtaaagg 10

<210> 91
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 91
tcggtcatag 10

<210> 92
<211> 10

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 92
 tacaacgagg 10

 <210> 93
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 93
 tggattggtc 10

 <210> 94
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 94
 ctttctaccc 10

 <210> 95
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 95
 ttttggctcc 10

 <210> 96
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

```
<210> 97
<211> 10
<212> DNA
<213> Artificial Sequence
```

```
<400> 97
tcgatacagg                                     10
```

```
<210> 98
<211> 10
<212> DNA
<213> Artificial Sequence
```

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

```
<400> 98
ggtactaagg                                     10
```

```
<210> 99
<211> 10
<212> DNA
<213> Artificial Sequence
```

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

```
<400> 99
agtctatgcg                                     10
```

```
<210> 100
<211> 10
<212> DNA
<213> Artificial Sequence
```

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

```
<400> 100
ctatccatgg                                     10
```

$$\begin{array}{ll} \langle 210 \rangle & 101 \\ \langle 211 \rangle & 10 \end{array}$$

<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 101
tctgtccaca 10

<210> 102
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 102
aagagggtac 10

<210> 103
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 103
cttcaacctc 10

<210> 104
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 104
gctcctcttg ccttaccaac 20

<210> 105
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 105
 gtaagtcgag cagtgtgatg 20

<210> 106
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 106
 gtaagtcgag cagtctgatg 20

<210> 107
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 107
 gacttagtgg aaagaatgta 20

<210> 108
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 108
 gtaattccgc caaccgtagt 20

<210> 109
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 109
 atggttgatc gatagtggaa 20

<210> 110
 <211> 20

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 110
 acgggggaccc ctgcattgag 20

 <210> 111
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 111
 tattctagac cattcgctac 20

 <210> 112
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 112
 acataaccac tttagcgttc 20

 <210> 113
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

 <400> 113
 cggtgatgc ctcctcaggc 20

 <210> 114
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 114
 agcatgttga gccagacac 20

<210> 115
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 115
 gacaccttgt ccagcatctg 20

<210> 116
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 116
 tacgctgcaa cactgtggag 20

<210> 117
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 117
 cgttagggtc tctatccact 20

<210> 118
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer for amplification from breast cancer
 tumor cDNA

<400> 118
 agactgactc atgtccccta 20

<210> 119
 <211> 20

<400> 123
gtatcgacgt agtgggtctcc 20

<210> 124
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 124
tagtgacatt acgacgctgg 20

<210> 125
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 125
cgggtgatgc ctctcaggc 20

<210> 126
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 126
atggctatatt tcgggggctg aca 23

<210> 127
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer for amplification from breast cancer
tumor cDNA

<400> 127
ccggtatctc ctcgaggta tt 22

<210> 128
<211> 18

```
<210> 132
<211> 22
<212> PRT
<213> Artificial Sequence
```

<220>

<223> Predicited Th Motifs (B-cell epitopes)

<221> VARIANT

<222> 13

<223> Xaa = Any Amino Acid

<400> 132

```
Gln Gly Ala Ala Gln Lys Pro Ile Asn Leu Ser Lys Xaa Ile Glu Val
 1             5             10             15
Val Gln Gly His Asp Glu
                20
```

<210> 133

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicited Th Motifs (B-cell epitopes)

<400> 133

```
Ser Pro Gly Val Phe Leu Glu His Leu Gln Glu Ala Tyr Arg Ile Tyr
 1             5             10             15
Thr Pro Phe Asp Leu Ser Ala
                20
```

<210> 134

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 134

```
Tyr Leu Leu Val Gly Ile Gln Gly Ala
 1             5
```

<210> 135

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 135

```
Gly Ala Ala Gln Lys Pro Ile Asn Leu
 1             5
```

<210> 136
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<221> VARIANT
 <222> 5
 <223> Xaa = Any Amino Acid

<400> 136
 Asn Leu Ser Lys Xaa Ile Glu Val Val
 1 5

<210> 137
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 137
 Glu Val Val Gln Gly His Asp Glu Ser
 1 5

<210> 138
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 138
 His Leu Gln Glu Ala Tyr Arg Ile Tyr
 1 5

<210> 139
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 139
 Asn Leu Ala Phe Val Ala Gln Ala Ala

1

5

<210> 140

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicited HLA A2.1 Motifs (T-cell epitopes)

<400> 140

Phe Val Ala Gln Ala Ala Pro Asp Ser

1

5

<210> 141

<211> 9388

<212> DNA

<213> Homo sapiens

<400> 141

```

gctcgcggcc gcgagctcaa ttaaccctca ctaaaggagg tcgactcgat cagactgtta 60
ctgtgtctat gtagaaagaa gtagacataa gagattccat tttgttctgt actaagaaaa 120
attcttctgc cttgagatgc tgtaaatctg taaccctagc cccaaccctg tgctcacaga 180
gacatgtgct gtgttgactc aaggttcaat ggatttaggg ctatgctttg ttaaaaaagt 240
gcttgaagat aatatgcttg ttaaaagtca tcaccattct ctaatctcaa gtaccaggg 300
acacaataca ctgcggaagg ccgcagggac ctctgtctag gaaagccagg tattgtccaa 360
gatttctccc catgtgatag cctgagatat ggccctcatgg gaagggtaaag acctgactgt 420
ccccagccc gacatcccc agcccgacat cccccagccc gacacccgaa aagggtctgt 480
gctgaggagg attagtaaaa gaggaaggcc tctttgcagt tgaggtaaga ggaaggcatc 540
tgtctcctgc tcgtccctgg gcaatagaat gtcttggtgt aaaacccgat tgtatgttct 600
acttactgag ataggagaaa acatccttag ggctggagg gagacacgct ggcggaata 660
ctgctcttta atgcaccgag atgtttgtat aagtgcacat caaggcacag cacctttcct 720
taaacttatt tatgacacag agacctttgt tcacgttttc ctgctgacct tctccccact 780
attaccctat tggcctgcc catccccctc tccgagatgg tagagataat gatcaataaa 840
tactgaggga actcagagac cagtgtccct gtaggtcctc cgtgtgctga gcgccgtcc 900
cttgggctca cttttctttc tctatacttt gtctctgtgt ctctttcttt tctcagtctc 960
tcgttccacc tgacgagaaa taccacagg tgtggagggg caggccaccc cttcaataat 1020
ttactagcct gttcgtgac aacaagactg gtggtgcaga aggttgggtc ttggtgttca 1080
ccgggtggca ggcattgggc aggtgggagg gtctccagcg cctggtgcaa atctccaaga 1140
aagtgcagga aacagcacca aggttgattg taaattttga tttggcgcgg caggtagcca 1200
ttccagcgca aaaatgcgca ggaaagcttt tgctgtgctt gtaggcagg aggccccag 1260
cacttcttat tggctaattg ggagggaacc tgcacatcca ttggctgaaa tctccgtcta 1320
tttgaggctg actgagcgcg ttcctttctt ctgtgttgcc tggaaacgga ctgtctgcct 1380
agtaacatct gatcacgttt cccattggcc gccgtttccg gaagcccgcc ctccatttc 1440
cggaagcctg gcgcaagggt ggtctgcagg tggcctccag gtgcaaagt ggaagtgtga 1500
gtcctcagtc ttgggtatatt cggccacgtg cctgccggac atgggacgct ggagggtcag 1560
cagcgtggag tcttgccctt ttgcgtccac ggggtgggaaa ttggccattg ccacggcggg 1620
aactgggact caggctgccc cccggccgtt tctcatccgt ccaccggact cgtgggcgct 1680
cgcactggcg ctgatgtagt ttctgacct ctgaccgcta ttgtctccag attaaaggta 1740
aaaacggggc tttttcagcc cactcgggta aaacgccttt tgatttctag gcagggtgtt 1800
tgttgacacg ctgggagggg gtgaccgcga ggttgaggtt tattaaaata cattcctgg 1860
ttatgttatg ttataataa agcaccceaa cttttacaaa atctcacttt ttgccagttg 1920

```

tattatattag tggactgtct ctgataagga cagccagtta aaatggaatt ttgttgttgc 1980
taattaaacc aatttttagt tttgggtgtt gtcctaatag caacaacttc tcaggcttta 2040
taaaaccata tttcttgggg gaaatttctg tgtaaggcac agcgagttag tttggaattg 2100
ttttaaagga agtaagttcc tggttttgat atcttagtag tgtaatgccc aacctggttt 2160
ttactaacco tgtttttaga ctctcccttt ccttaaatac cctagccttg tttccacctg 2220
aattgactct cccttagcta agagcgccag atggactcca tcttggtctt ttcactggca 2280
gccccttctt caaggactta acttgtgcaa gctgactccc agcacatcca agaatgcaat 2340
taactgttaa gatactgtgg caagctatat cgcagttcc gaggaattca tccgattgat 2400
tatgccc aaa agccccgcgt ctatcacctt gtaataatct taaagccct gcacctggaa 2460
ctattaactt tctgttaacc atttatcctt ttaactttt tgcttacttt atttctgtaa 2520
aattgtttta actagacctc cctcccctt tctaaaccaa agtataaaag aagatctagc 2580
cccttcttca gacggagag aattttgagc attagccatc tcttggcggc cagctaaata 2640
aatggacttt taatttgtct caaagtgtgg cgttttctct aactcgctca ggtacgacat 2700
ttggaggccc cagcgagaaa cgtcacggg agaaacgtca ccgggcgaga gccggggccc 2760
ctgtgtgctc ccccggaagg acagccagct tgtagggggg agtgccacct gaaaaaaaaa 2820
tttccaggtc cccaaaggt gaccgtcttc cggaggacag cggatcgact accatgcggg 2880
tgcccaccaa aattccacct ctgagtcctc aactgctgac cccggggtca ggtaggtcag 2940
atttgacttt ggttctggca gaggaagcg accctgatga ggtgtccct cttttgactc 3000
tgcccatttc tctaggatgc tagagggtag agcctggtt ttctgttaga cgctctgtg 3060
tctctgtctg ggagggaagt ggccctgaca ggggccatcc cttgagtcag tccacatccc 3120
aggatgctgg gggactgagt cctggtttct ggcagactgg tctctctctc tctctttttc 3180
tatctctaatt ctttccctgt tcaggtttct tggagaatct ctgggaaaga aaaaagaaaa 3240
actgttataa actctgtgtg aatggtgaat gaatggggga ggacaagggc ttgcgcttgt 3300
cctccagttt gtagctccac ggcgaaagct acggagttca agtgggccct cacctgcggg 3360
tccgtggcga cctcataagg ctttaaggcag catccggcat agctcgatcc gagccggggg 3420
tttataccgg cctgtcaatg ctaagaggag cccaagtccc ctaaggggga gcggccaggc 3480
gggcatctga ctgateccat cacgggacct cctccccttg ttgtctaaa aaaaaaaaaa 3540
gaagaaactg tcataactgt ttacatgccc taggtcaac tgtttgtttt atgtttattg 3600
ttctgttcgg tgtctattgt cttgtttagt ggtgtcaag gttttgcatg tcaggacgtc 3660
gatattgccc aagacgtctg ggtaagaact tctgcaaggt ccttagtgct gattttttgt 3720
cacaggaggt taaatttctc atcaatcatt taggtcgcc accacagtc tgtcttttct 3780
gccagaagca agtcagggtg tgttacggga atgagtgtaa aaaaacattc gctgattgg 3840
gatttctggc accatgatgg ttgtatttag attgtcatac cccacatcca ggttgattgg 3900
acctcctcta aactaaactg gtggtgggtt caaacagcc accctgcaga tttccttgct 3960
cacctctttg gtcattctgt aacttttct gtgcccttaa atagcacact gtgtagggaa 4020
acctaccctc gtactgcttt acttcgttta gattcttact ctgttctct cgtgctactc 4080
tcccattctt aaaaacgatc aagtggctct tttcctctc cctgccccct accccacaca 4140
tctcgttttc cagtgcgaca gcaagttcag cgtctccagg acttggtctt ccttggtctt 4200
cttgaaccct taaaagaaaa agctgggttt gagctatttg cctttgagtc atggagacac 4260
aaaaggtatt tagggtacag atctagaaga agagagagaa cacctagatc caactgacct 4320
aggagatctc gggctggcct ctagtctctc tccctcaatc ttaaagctac agtgatgtgg 4380
caagtggat ttagctgttg tggttttct gctctttctg gtcattgtga ttctgttctt 4440
tcgatactcc agccccccag ggagtgagtt tctctgtctg tgctgggttt gatattctatg 4500
ttcaaatctt attaaattgc cttcaaaaaa aaaaaaaaaa gggaaacact tctcccagc 4560
cttgtaaggg ttggagccct ctccagtata tgctgcagaa tttttctctc ggtttctcag 4620
aggattatgg agtccgcctt aaaaaaggca agctctggac actctgcaaa gtagaatggc 4680
caaagtttg agttgagtgg ccccttgaag ggtcactgaa cctcacaatt gttcaagctg 4740
tgtggcgggt tgttactgaa actccggcc tccctgatca gtttccctac attgatcaat 4800
ggctgagttt ggtcaggagc acccttcca tggtccact catgcaccat tcataatttt 4860
acctccaagg tctcctgag ccagaccgtg ttttcgcctc gacctcagc cggttcagct 4920
cgccctgtac tgctctctc tgaagaagag gagagtctcc ctcacccagt cccaccgct 4980
taaaaccagc ctactccctt aggtcatcc catgtctct cggctatgtc cctgtaggc 5040
tcatcaccca ttgectcttg gttgcaaccg tgggtggagg aagtagcccc tctactacca 5100
ctgagagagg cacaagctcc tctgggtgat gagtgtcca ccccttctt ggtttatgtc 5160

ccttctttct	acttctgact	tgtataattg	gaaaacccat	aatcctccct	tctctgaaaa	5220
gccccaggct	ttgacctcac	tgatggagtc	tgactctctg	acacattggc	ccacctggga	5280
tgactgtcaa	cagctccttt	tgaccctttt	cacctctgaa	gagagggaaa	gtatccaaag	5340
agaggccaaa	aagtacaacc	tcacatcaac	caataggccg	gaggaggaag	ctagaggaat	5400
agtgattaga	gacccaattg	ggacctaatt	gggacccaaa	tttctcaagt	ggagggagaa	5460
cttttgacga	tttccaccgg	tatctcctcg	tgggtattca	gggagctgct	cagaaacctt	5520
taaacttgtc	taaggcgact	gaagtctgcc	aggggcatga	tgagtcacca	ggagtgtttt	5580
tagagcacct	ccaggaggct	tatcggattt	acaccctttt	tgacctggca	gccccgaaa	5640
atagccatgc	tcttaatttg	gcatttgtgg	ctcaggcagc	cccagatagt	aaaaggaaac	5700
tccaaaaact	agagggattt	tgctggaatg	aataccagtc	agctttttaga	gatagcctaa	5760
aagggttttg	acagtcaaga	ggttgaaaaa	caaaaacaag	cagctcaggc	agctgaaaaa	5820
agccactgat	aaagcatcct	ggagtatcag	agtttactgt	tagatcagcc	tcatttgact	5880
tcccctccca	catggtgttt	aaatccagct	actactcttc	ctgactcaaa	ctccactatt	5940
cctgttcattg	actgtcagga	actgttgga	actactgaaa	ctggccgacc	tgatcttcaa	6000
aatgtgcccc	taggaaaggt	ggatgccacc	gtgttcacag	acagtagcag	cttcctcgag	6060
aagggactac	gaaaggccgg	tgcagctgtt	accatggaga	cagatgtgtt	gtgggctcag	6120
gctttaccag	caaacacctc	agcacaaaag	gctgaattga	tcgccctcac	tcaggctctc	6180
cgatggggta	aggatattaa	cgtaaacact	gacagcaggt	acgcctttgc	tactgtgcat	6240
gtacgtggag	ccatctacca	ggagcgtggg	ctactcacct	cagcaggtgg	ctgtaatcca	6300
ctgtaaagga	catcaaaagg	aaaacacggc	tggtgcccgt	ggtaaccaga	aagctgattc	6360
agcagctcaa	gatgcagtgt	gactttcagt	cacgcctcta	aacttgctgc	ccacagtctc	6420
ctttccacag	ccagatctgc	ctgacaatcc	cgcatactca	acagaagaag	aaaactggcc	6480
tcagaactca	gagccaataa	aaatcaggaa	ggttggtgga	ttcttctctga	ctctagaatc	6540
ttcatacccc	gaactcttgg	gaaaacttta	atcagtcacc	tacagtctac	cacccattta	6600
ggaggagcaa	agctacctca	gctcctccgg	agccttttta	agatccccc	tcttcaaagc	6660
ctaacagatc	aagcagctct	ccggtgcaca	acctgcgccc	aggtaaatgc	caaaaaaggt	6720
cctaaaccca	gcccaggcca	ccgtctccaa	gaaaactcac	caggagaaaa	gtgggaaatt	6780
gactttacag	aagtaaaaacc	acaccgggct	gggtacaaat	accttctagt	actggtagac	6840
accttctctg	gatggactga	agcatttgct	accaaaaacg	aaactgtcaa	tatggtagtt	6900
aagtttttac	tcaatgaaat	catccctcga	cgtgggctgc	ctgttgccat	aggggtctgat	6960
aatggaccgg	ccttcgcctt	gtctatagtt	tagtcagtc	gtaaggcgtt	aaacattcaa	7020
tgggaagctcc	attgtgccta	tcgaccccag	agctctgggc	aagtagaacg	catgaactgc	7080
accctaaaaa	acactcttac	aaaattaatc	ttagaaaccg	gtgtaaattg	tgtaagtctc	7140
cttccttttag	ccctacttag	agtaagggtgc	acctcttact	gggctgggtt	cttacctttt	7200
gaaatcatgt	atgggagggc	gctgcctatc	ttgcctaagc	taagagatgc	ccaattggca	7260
aaaatatcac	aaactaattt	attacagtac	ctacagtctc	cccaacaggt	acaagatata	7320
atcctgccac	ttgttcgagg	aacccatccc	aatccaattc	ctgaacagac	agggccctgc	7380
cattcattcc	cgccagggtga	cctgttggtt	gttaaaaaagt	tccagagaga	aggactccct	7440
cctgcttgga	agagacctca	caccgtcatc	acgatgcca	cggctctgaa	ggtggatggc	7500
attoctgctg	ggattcatca	ctcccgcctc	aaaaaggcca	acggagccca	actagaaaca	7560
tgggtcccca	gggctgggtc	aggccccctt	aaactgcacc	taagttgggt	gaagccatta	7620
gattaattct	ttttcttaat	tttgtaaaac	aatgcatagc	ttctgtcaaa	cttatgtatc	7680
ttaagactca	atataacccc	cttggtataa	ctgaggaatc	aatgatttga	ttccccaaaa	7740
acacaagtgg	ggaatgtagt	gtccaacctg	gtttttacta	accctgtttt	tagactctcc	7800
ctttccctta	atcactcagc	cttggtttcca	cctgaattga	ctctccctta	gctaagagcg	7860
ccagatggac	tccatcttgg	ctcttttact	ggcagccgct	tcctcaagga	cttaacttgt	7920
gcaagctgac	ttccagcaca	tccaagaatg	caattaactg	ataagatact	gtggcaagct	7980
atatccgcag	ttcccaggaa	ttcgtccaat	tgattacacc	caaaagcccc	gcgtctatca	8040
ccttgtaata	atcttaaagc	ccctgcacct	ggaactatta	acgttctctg	aaccatttat	8100
ccttttaact	tttttgccct	ctttattttc	gtaaaattgt	tttaactaga	ccccccctct	8160
cctttctaaa	ccaaagtata	aaagcaaata	tagccccctc	ttcaggccga	gagaatttcg	8220
agcgttagcc	gtctcttggc	caccagctaa	ataaacggat	tcttcatgtg	tctcaaagtg	8280
tggcgtttcc	tctaactcgc	tcaggtaacga	ccgtggtagt	attttcccca	acgtcttatt	8340
tttagggcac	gtatgtagag	taacttttat	gaaagaaacc	agttaaggag	gttttgggat	8400


```

tcgggtgatg cctcctcagg ccaagaagat aaagcttcag acccctaaca catttccaaa 60
aaggaagaaa ggagaaaaaa gggcatcatc cccgttccga agggtcaggg aggaggaaat 120
tgaggtggat tcacgagttg cggacaactc ctttgatgcc aagcgaggtg cagccggaga 180
ctggggagag cgagccaatc aggttttgaa gttcctctca gtgc 224

```

```

<210> 145
<211> 111
<212> DNA
<213> Homo sapiens

```

```

<400> 145
agccattttac caccatcca caaaaaaaaa aaaaaaaaaag aaaaatatca aggaataaaa 60
atagactttg aacaaaaagg aacatttgct ggctgagga ggcaccccc g 111

```

```

<210> 146
<211> 585
<212> DNA
<213> Homo sapiens

```

```

<400> 146
tagcatgttg agcccagaca cttgtagaga gaggaggaca gttagaagaa gaagaaaagt 60
ttttaaatgc tgaaagttac tataagaaaag ctttggtctt ggatgagact tttaaagatg 120
cagaggatgc tttgcagaaa cttcataaat atatgcaggt gattccttat ttctctctag 180
aaatttagtg atatttgaaa taatgcccaa acttaatttt ctctgagga aaactattct 240
acattactta agtaaggcat tatgaaaagt ttcttttttag gtatagtttt tcttaatttg 300
gtttgacatt gttcatagt gcctctgttt ttgtccataa tcgaaagtaa agatagctgt 360
gagaaaacta ttacctaaat ttggtatggt gtttgagaa atgtccttat agggagctca 420
cctggtggtt tttaaattat tgttgctact ataattgagc taattataaa aacctttttg 480
agacatattt taaattgtct ttctctgtaa tactgatgat gatgttttct catgcatttt 540
cttctgaatt gggaccattg ctgctgtgtc tgggctcaca tgcta 585

```

```

<210> 147
<211> 579
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 383, 453, 465, 501
<223> n = A,T,C or G

```

```

<400> 147
tagcatgttg agcccagaca ctgggcagcg ggggtggcca cggcagctcc tgccgagccc 60
aagcgtgttt gtctgtgaag gaccctgacg tcacctgcca ggctagggag ggggtcaatgt 120
ggagtgaatg ttcaccgact ttgcgaggag tgtgcagaag ccagggtgcaa cttgggtttgc 180
ttgtgttcat caccctcaa gatatgcaca ctgctttcca aataaagcat caactgtcat 240
ctccagatgg ggaagacttt ttctccaacc agcaggcagg tccccatcca ctccagacacc 300
agcacgtcca ctttctcggg cagcaccacg tctccacct tctgctggta cacggtgatg 360
atgtcagcaa agcgtttctg cangaccagc tgccccgtgt gctgtgccat ctactggcc 420
tccaccgctg acaccgctct aggccgcgca tantgtgcac agaanaaatg atgatccagt 480
cccacagccc acgtccaaga ngactttatc cgtcagggat tctttattct gcaggatgac 540
ctgtggtatt aattgttcgt gtctgggctc aacatgcta 579

```

```

<210> 148

```

<213> Homo sapiens

tgacaccttg	tccagcatct	gcaagccagg	aagagagtcc	tcaccaagat	ccccacccg	60
ttggcaccag	gatcttggac	ttccaatctc	cagaactgtg	agaaataagt	atttgtcgct	120
aaataaaatct	ttgtggtttc	agatatattag	ctatagcaga	tcaggctgac	taagagaaac	180
cccataagag	ttacatactc	attaatctcc	gtctctatcc	ccagggtctca	gatgctggac	240
aagggtgtca						249

<213> Homo sapiens

tgacacatttg	tccagcatct	gctattttgt	gactttttta	taatagccat	tctgactgg	60
gtgagatggt	aactcattgt	gggtttggtc	tgcattttct	taatgatcag	tgatattaag	120
cttttttttaa	atatgcttgt	tgaccacatg	tatatcatct	tttgagaagt	gtctgttcat	180
atcctttgcc	cactttttta	ttttttttatc	ttgtaaattt	gtttaatttc	cttacagatg	240
ctggacaagg	tgtca					255

<213> Homo sapiens

ttacgctgca	acactgtgga	ggccaagctg	ggatcacttc	ttcattctaa	ctggagagga	60
tggaagtcca	agtccagcag	aggggtgggtg	ggtagacagt	ggcactcaga	aatgtcagct	120
ggacccctgt	ccccgcatag	gcaggacagc	aaggctgtgg	ctctccaggg	ccagctgaag	180
aacaggacac	tgtctccgct	gccacaaagc	gtcagagact	cccattcttg	aagcacggcc	240
ttcttggtct	tctgtcactt	ccctgtttctg	ttagagacct	ggttatagac	aaggcttctc	300
cacagtgttg	cagcgtaa					318

<213> Homo sapiens

<223> n = A, T, C or G

tnacgcngcn	acnntgtaga	ganggnaagg	cnttccccac	attncgccott	catnanagaa	60
ttattcnacc	aagmntgacc	natgccnttt	atgacttaca	tgcnnaactnc	ntaatctgtg	120
tcnngcctta	aaagcnnntc	cactacatgc	ntcancactg	tntgtgtnac	ntcatnaact	180
qtcnngaata	ggggcncata	actacagaaa	tgcanttcat	actgcttcca	ntgccatcng	240

<222> 46, 199, 252, 266

<223> n = A,T,C or G

<400> 155

```
gacgcttggc cacttgacac attaaacagt tttgcataat cactancatg tatttctagt 60
ttgctgtctg ctgtgatgcc ctgccctgat tctctggcgt taatgatggc aagcataatc 120
aaacgctgtt ctgttaattc caagttataa ctggcattga ttaaagcatt atctttcaca 180
actaaactgt tcttcatana acagcccata ttattatcaa attaagagac aatgtattcc 240
aatatccttt anggccaaata tatttnatgt cccttaatta agagctactg tccgt 295
```

<210> 156

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 172, 178, 332, 338, 342, 381, 400, 402

<223> n = A,T,C or G

<400> 156

```
gacgcttggc cacttgacac tgcagtggga aaaccagcat gagccgctgc ccccaaggaa 60
cctcgaagcc caggcagagg accagccatc ccagcctgca ggtaaagtgt gtcacctgtc 120
aggtgggctt ggggtgagtg ggtgggggaa gtgtgtgtgc aaaggggggtg tnaatgtnta 180
tgcgtgtgag catgagtgtg ggctagtgtg actgcatgtc agggagtgtg aacaagcgtg 240
cggggggtgtg tgtgcaagtg cgtatgcata tgagaatatg tgtctgtgga tgagtgcatt 300
tgaaagtctg tgtgtgtgcg tgtggtcatg anggtaantt antgactgcg caggatgtgt 360
gagtgtgcat ggaacactca ntgtgtgtgt caagtggccn ancgtc 406
```

<210> 157

<211> 208

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 115, 119, 182, 187

<223> n = A,T,C or G

<400> 157

```
tgacgcttgg ccacttgaca cactaaaggg tgttactcat cactttcttc tctcctcggt 60
ggcatgtgag tgcacttatt cacttggcac tcatttggtt ggcagtgact gtaanccana 120
tctgatgcat acaccagctt gtaaattgaa taaatgtctc taatactatg tgctcacaat 180
anggtanggg tgaggagaag gggagaga 208
```

<210> 158

<211> 547

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 235

<223> n = A,T,C or G

00440-004350

<221> misc_feature
 <222> 641
 <223> n = A,T,C or G

<400> 172
 tcgggtgatg cctcctcagg cttgtcggtta gtgtacacag agctgctcat gaagcgacag 60
 cggtgcccc tggcaattca gaacctcttc ctctacactt ttgggtgcgct tctgaatcta 120
 ggtctgcatg ctggcggcgg ctctggccca ggctcctgg aaagtttctc aggatgggca 180
 gcaactcgtg tgctgagcca ggactaaat ggactgctca tgtctgctgt catggagcat 240
 ggagcagca tcacacgcct ctttgtggtg tctgctcgc tgggtggtaa cgcctgctc 300
 tcagcagtc tgctacggct gcagctcaca gcgccttct tctggccac attgctcatt 360
 ggcttgcca tgcgcctgta ctatggcagc cgctagtccc tgacaacttc caccctgatt 420
 ccggaccctg tagattgggc gccaccacca gatccccctc ccaggccttc ctcctctctc 480
 catcagcggc cctgtaacaa gtgccttggtg agaaaagctg gagaagtgaagg ggcagccagg 540
 ttattctctg gaggttggtg gatgaagggg taccctagg agatgtgaag tgtgggtttg 600
 gttaaggaaa tgcttaccat cccccacccc caaccaagtt ntccagact aaagaattaa 660
 ggtaacatca atacctaggc ctgaggaggc atcaccga 699

<210> 173
 <211> 701
 <212> DNA
 <213> Homo sapiens

<400> 173
 tcgggtgatg cctcctcagg ccagatcaaa cttggggttg aaaactgtgc aaagaaatca 60
 atgtcggaga aagaattttg caaaagaaaa atgcctaata agtactaatt taataggta 120
 cattagcagt ggaagaagaa atgttgatat tttatgtcag ctattttata atcaccagag 180
 tgcttagctt catgtaagcc atctcgtatt cattagaaat aagaacaatt ttattcgtcg 240
 gaaagaactt ttcaatttat agcatcttaa ttgctcagga ttttaaattt tgataaagaa 300
 agctccactt ttggcaggag tagggggcag ggagagagga ggctccatcc acaaggacag 360
 agacaccagg gccagtaggg tagctggttg ctggatcagt cacaacggac tgacttatgc 420
 catgagaaga aacaacctcc aaatctcagt tgcttaatac aacacaagct catttcttgc 480
 tcacgttaca tgctctatgt agatcaacag caggtgactc agggaccag gctccatctc 540
 catatgagct tccatagtca ccaggacacg ggctctgaaa gtgtcctcca tgcagggaca 600
 catgctctt cctttcattg ggcagagcaa gtcacttatg gccagaagtc aactgcagg 660
 gcagtgccat cctgctgtat gcctgaggag gcatcaccg a 701

<210> 174
 <211> 700
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 19
 <223> n = A,T,C or G

<400> 174
 tcgggtgatg cctcctcang cccctaaatc agagtccagg gtcagagcca caggagacag 60
 ggaaagacat agatttttaac cggccccctt caggagattc tgaggctcag ttcactttgt 120
 tgcagtttga acagaggcag caaggctagt ggttaggggc acggtctcta aagctgcact 180
 gcoctggatct gcctcccagc tctgccagga accagctgcg tggccttgag ctgctgacac 240
 gcagaaagcc cctgtgggac ccagtctcct cgtctgtaag atgaggacag gactctagga 300
 accctttccc ttggtttggc ctcactttca caggctccca tcttgaactc tatctactct 360

```

tttcctgaaa ccttgtaaaa gaaaaaagtg ctagcctggg caacatggca aaaccctgtc 420
tctacaaaaa atacaaaaat tagttgggtg tgggtggcatg tgccctgtagt cccagccact 480
tgggaggtgc tgaggtggga ggatcacttg agcccgaggag gtggaggttg cagtgaacca 540
agatcatgcc actgcactcc agcctgagta atagagtaag actctgtctc aaaaacaaca 600
acaacaacag tgagtgtgcc tctgtttccg gggtggatgg ggcaccacat ttatgcatct 660
ctcagatttg gacgctgcag cctgaggagg catcacccga 700

```

<210> 175

<211> 484

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 30

<223> n = A,T,C or G

<400> 175

```

tatagggcga attgggcccg agttgcatgn tcccggccgc catggccgcg ggattcgggt 60
gatgcctcct caggcttgct tggcacaagc tacttctctg agctcagaaa gtgccccttg 120
atgagggaaa atgtcctact gcaactgcga tttctcagtt ccattttacc tcccagtcct 180
ccttctaacc cagttaataa attcattcca caagtattta ctgattacct gcttgtgcca 240
gggactattc tcaggctgaa gaaggtggga ggggagggcg gaacctgagg agccacctga 300
gccagcttta tatttcaacc atggctggcc catctgagag catctcccca ctctcgccaa 360
cctatcgggg catagcccag ggatgcccc aggcggccca ggtagatgc gtcccttttg 420
cttgtcagtg atgacataca ccttagctgc ttagctggtg ctggcctgag gaggcatcac 480
ccga 484

```

<210> 176

<211> 432

<212> DNA

<213> Homo sapiens

<400> 176

```

tcgggtgatg cctcctcagg gctcaaggga tgagaagtga cttctttctg gagggaccgt 60
tcatgccacc caggatgaaa atggataggg acccacttgg aggacttgct gatatgtttg 120
gacaaatgcc aggtagcgga attggtactg gtccaggagt tatccaggat agattttcac 180
ccaccatggg acgtcatcgt tcaaataaac tcttcaatgg ccattgggga cacatcatgc 240
ctccacaca atcgagcttt ggagagatgg gaggcaagtt tatgaaaagc caggggctaa 300
gccagctcta ccataaccag agtcagggac tcttatccca gctgcaagga cagtcgaagg 360
atatgccacc tcggttttct aagaaaggac agcttaatgc agatgagatt agcctgagga 420
ggcatcccc ga 432

```

<210> 177

<211> 788

<212> DNA

<213> Homo sapiens

<400> 177

```

tagcatgttg agcccagaca cagtagcatt tgtgccatt tctggttgga atggtgacaa 60
catgctggag ccaagtgcta acatgccttg gttcaaggga tggaaagtca cccgtaagga 120
tggcaatgcc agtggaaaca cgctgcttga ggctctggac tgcatectac caccaactcg 180
cccaactgac aagcccttgc gcctgcctct ccaggatgtc tacaaaattg gtggtatttg 240
tactgttcct gttggccgag tggagactgg tgttctcaaa cccggtatgg tggtcacctt 300

```

```

tgctccagtc aacggttaca cggaagtaaa atctgtcgaa atgcaccatg aagctttgag 360
tgaagctctt cctggggaca atgtgggctt caatgtcaag aatgtgtctg tcaaggatgt 420
tcgtcgtggc aacggttgctg gtgacagcaa aaatgaccca ccaatggaag cagctggcct 480
cactgctcag gtgattatcc tgaacatcc aggccaaata agtgccggct atgcccctgt 540
attggattgc cacacggctc acattgcatg caagtttgct gagctgaagg aaaagattga 600
tcgccgttct ggtaaaaagc tgggaagatgg ccctaaattc ttgaagtctg gtgatgctgc 660
cattgttgat atggttcctg gcaagcccat gtgtgttgag agcttctcag actatccacc 720
tttgggtcgc tttgctgttc gtgatatgag acagacagtt gcggtgggtg tctgggctca 780
acatgcta

```

<210> 178

<211> 786

<212> DNA

<213> Homo sapiens

<400> 178

```

tagcatgttg agcccagaca cctgtgtttc tgggagctct ggcagtggcg gattcatagg 60
cacttgggct gcactttgaa tgacacactt ggctttatta gattcactag tttttaaaaa 120
attgttggtc gtttcttttc attaaagggt taatcagaca gatcagacag cataattttg 180
tatttaatga cagaaacgtt ggtacatttc ttcataatg agcttgcat ctgaagcaag 240
agcctacaaa aggcacttgt tataaatgaa agttctggct ctagaggcca gtactctgga 300
gtttcagagc agccagtgat tgttccagtc agtgatgcct agttatatag aggaggagta 360
cactgtgcac tcttctaggt gtaagggat gcaactttgg atcttaaaat tctgtacaca 420
tacacacttt atatatatgt atgtatgtat gaaaacatga aattagtttg tcaaatatgt 480
gtgtgttttag tatttttagct tagtgcaact atttccacat tatttattaa attgatctaa 540
gacactttct tgttgacacc ttgaatatta atgttcaagg gtgcaatgtg tattccttta 600
gattgtttaa gcttaattac tatgatattg agtaaattaa cttttaaaat gtatttgagc 660
ccttctgtag tgtcgtaggg ctcttacagg gtgggaaaga ttttaatttt ccagttgcta 720
attgaacagt atggcctcat tatatatatt gatttatagg agtttgtgtc tgggctcaac 780
atgcta

```

<210> 179

<211> 796

<212> DNA

<213> Homo sapiens

<400> 179

```

tagcatgttg agcccagaca ctggttaca gaccagacct gcttcctcca tatgtaaaaca 60
gcttttaaaa agccagtga cctttttaat actttggcaa ccttctttca caggcaaaga 120
acacccccat ccgccccttg tttggagtgc agagtgtggc tttggttctt tgccttgctt 180
ggagtatact tctaattcct gttgtcctgc acaagctgaa taccgagcta cccaccgcca 240
cccaggccag gtttccactc atttattact ttatgtttct gttccattgc tggccacag 300
aaataagttt tcctttggag gaatgtgatt atacccttt aatttcctcc ttttgctttt 360
ttttaatatc attggtatgt gtttggccca gaggaactg aaattcacca tcatcttgac 420
tggcaatccc attaccatgc tttttttaa aaacgtaatt tttcttgctt tacattggca 480
gagttagcct tcctggctac tggcttaatg tagtactca gtttctaggt ggcattagga 540
atgagacctg aagcacagac tgtcttacca caaagggtga caagatctca aaccttagcc 600
aaagggtat gtcaggtttc aatgctatct gcttctgttc ctgctcactg ttctggattt 660
tgtccttctt catccctagc accagaattt ccagctctcc ctccctacct tccctgtttt 720
taattctaatt ctatcagcaa aataactttt caaatgtttt aaccggtatc tccatgtgtc 780
tgggctcaac atgcta

```

<210> 180

<211> 488

<212> DNA

<213> Homo sapiens

<400> 180

```

ggatgtgctg caaggcgaatt aagttgggta acgccagggt tttcccagtc acgacgttgt 60
aaaacgacgg ccagtgaatt gtaatacgac tcaactatagg gcgaattggg cccgacgtcg 120
catgctcccc gccgccatgg ccgcgggata gcatgttgag cccagacacc tgcaggtcat 180
ttggagagat ttttcacgtt accagcttga tgggtctttt caggaggaga gacactgagc 240
actcccaagg tgaggttgaa gatttcctct agatagccgg ataagaagac taggagggat 300
gcctagaaaa tgattagcat gcaaatttct acctgccatt tcagaactgt gtgtcagccc 360
acattcagct gcttcttggt aactgaaaag agagagggtat tgagactttt ctgatggccg 420
ctctaacatt gtaacacagt aatctgtgtg tgtgtgggtg tgtgtgtgtg tctgggctca 480
acatgcta                                     488

```

<210> 181

<211> 317

<212> DNA

<213> Homo sapiens

<400> 181

```

tagcatgttg agcccagaca cggcgacggg acctgatgag tggggtgatg gcacctgtga 60
aaaggaggaa cgtcatcccc catgatattg gggaccaga tgatgaacca tggctccggc 120
tcaatgcata tttaatccat gatactgctg atttgaagga cctgaacctg aagtttgtgc 180
tgcaggttta tcgggactat tacctcacgg gtgatcaaaa ctctcctgaag gacatgtggc 240
ctgtgtgtct agtaagggtat gcacatgcag tggccagtgt gccaggggta tggttgggtg 300
ctgggctcaa catgcta                                     317

```

<210> 182

<211> 507

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 493

<223> n = A,T,C or G

<400> 182

```

tagcatgttg agcccagaca ctggctgtta gccaaatcct ctctcagctg ctccctgtgg 60
tttggtgact caggattaca gaggcatacct gtttcaggga acaaaaagat ttttagctgcc 120
agcagagagc accacataca ttagaatggg aaggactgcc acctccttca agaacaggag 180
tgagggtggg ggtgaatggg aatggaagcc tgcattccct gatgcatttg tgctctctca 240
aatcctgtct tagtcttagg aaaggaagta aagtttcaag gacggttccg aactgctttt 300
tgtgtctggg ctcaacatgc tatcccgcgg ccattggcggc cgggagcatg cgacgtcggg 360
cccaattcgc cctatagtga gtcgtattac aattcactgg ccgtcgtttt acaacgtcgt 420
gactgggaaa accctggcgt tacccaactt aatgcgcctg cagcacatcc ccccttccca 480
gctggcgtaa tancgaaaag gcccgca                                     507

```

<210> 183

<211> 227

<212> DNA

<213> Homo sapiens

<400> 183

gatttacgct gcaacactgt ggaggtagcc ctggagcaag gcaggcatgg atgcttctgc 60
aatcccaaaa tggagcctgg tatttcagcc aggaatctga gcagagcccc ctctaattgt 120
agcaatgata agttattctc tttgttcttc aaccttccaa tagccttgag cttccagggg 180
agtgtcgtta atcattacag cctggtctcc acagtgttgc agcgtaa 227

<210> 184

<211> 225

<212> DNA

<213> Homo sapiens

<400> 184

ttacgctgca acactgtgga gcagattaac atcagacttt tctatcaaca tgactgggggt 60
tactaaaaag acaacaaatc aatggcttca aaagtctaag gaataatttc gatacttcaa 120
ctttataaaa cctgacaaaa ctatcaatca agcataaaga cagatgaaga acatttccag 180
atthtggcca atcagatatt ttacctccac agtgttgcag cgtaa 225

<210> 185

<211> 597

<212> DNA

<213> Homo sapiens

<400> 185

ggcccgacgt cgcattgctcc cggccgccat ggccgcggga ttcgttaggg tctctatcca 60
ctgggaccca taggctagtc agagtattta gatttgagtt cctttctgct tcccagaatt 120
tgaaagaaaa ggagttaggt gatagagctg agagatcaga tttgcctctg aagcctgttc 180
aagatgtatg tgctcagacc ccaccactgg ggctgtggg tgaggtcctg ggcattctatt 240
tgaatgaatt gctgaagggg agcactatgc caaggaaagg gaacccatcc tggcactggc 300
acaggggtca ccttatccag tgctcagtcg ttctttgctg ctacctgggt tctctcata 360
tgtgaggggg aggttaagaag aagtgcccg tggtgtgcga gttttagaac atctaccagt 420
aagtggggaa gtttcacaaa gcagcagctt tggtttgtgt attttcacct tcagttagaa 480
gaggaaggct gtgagatgaa tgtagttga gtggaaaaga cgggtaagct tagtgatag 540
agaccctaac gaatcactag tgcggccgcc ttgcaggtcg accatatggg agagctc 597

<210> 186

<211> 597

<212> DNA

<213> Homo sapiens

<400> 186

ggcccgaaat tgcattgtcc cggccgccat ggccgcggga ttcgttaggg tctctatcca 60
ctacctaaaa aatcccaaac atataactga actcctcaca cccaattgga ccaatccatc 120
acccagaggg cctacagatc ctcctttgat acataagaaa atttcccaa actacctaac 180
tatacatatt tgcaagattt gttttaccaa attttgatgg cctttctgag cttgtcagtg 240
tgaaccacta ttacgaacga tcggatatta actgcccctc accgtccagg ttagctggc 300
aacatcaagt gcagtaaata ttcattaaat tttcacctac taagggtgctt aaacacccta 360
gggtgccatg tcggtagcag atcttttgat ttgtttttat ttcccataag ggtcctgttc 420
aagggtcaatc atacatgtag tgtgagcagc tagtcactat cgcattgactt ggaggggtgat 480
aatagaggcc tcctttgtctg ttaaagaact cttgtcccag cctgtcaaag tggatagaga 540
ccctaacgaa tcaactagtgc ggccgcctgc aggtcgacca tatgggagag ctcccaa 597

<210> 187

<211> 324

<212> DNA

<213> Homo sapiens

<400> 187
 tcgttaggggt ctctatccac ttgcaggtaa aatccaatcc tgtgtatata ttatagtctt 60
 ccataatgtag tggttcaaga gactgcagtt ccagaaagac tagccgagcc catccatgtc 120
 ttccacttaa ccctgctttg ggttacacat cttaactttt ctgttcaagt ttctctgtgt 180
 agtttatagc atgagtattg ggawaatgcc ctgaaacctg acatgagatc tgggaaacac 240
 aaacttactc aataagaatt tctcccatat ttttatgatg gaaaaatttc acatgcacag 300
 aggagtggat agagacccta acga 324

<210> 188

<211> 178

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 46

<223> n = A,T,C or G

<400> 188
 gcgcggggat tcgggggtgat acctcctcat gccaaaatac aacgtntaat ttcacaactt 60
 gccttccaat ttacgcattt tcaatttgct ctccccattt gttgagtcac aacaaacacc 120
 attgcccaga aacatgtatt acctaacatg cacatactct taaaactact catccctt 178

<210> 189

<211> 367

<212> DNA

<213> Homo sapiens

<400> 189
 tgacaccttg tccagcatct gacacagtct tggctcttgg aaaatattgg ataaatgaaa 60
 atgaatttct ttagcaagtg gtataagctg agaataatcg tatcacatat cctcattcta 120
 agacacattc agtgtccctg aaattagaat aggacttaca ataagtgtgt tcactttctc 180
 aatagctgtt attcaattga tggtaggcct taaaagtcaa agaaatgaga gggcatgtga 240
 aaaaaagctc aacatcactg atcattagaa aacttccatt caaaccacca atgagatacc 300
 atctcatacc agtcagaatg gctattatta aaaagtcaaa aaataacaga tgctggacaa 360
 ggtgtca 367

<210> 190

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 323

<223> n = A,T,C or G

<400> 190
 gacaccttgt ccagcatctg acaacgctaa cagcctgagg agatctttat ttattttattt 60
 agtttttact ctggctaggc agatgggtggc taaaacattc atttaccat ttattcattt 120
 aattgttctt gcaaggccta tggatagagt attgtccagc actgctctgg aagctaggag 180
 catggggatg aacaagatag gctacatcct gttccacag aacttccact ttagtctggg 240
 aaacagatga tatatacaaa tatataaatg aattcaggta gttttaagta cgaaaagaat 300

```
<210> 191
<211> 369
<212> DNA
<213> Homo sapiens
```

```
<210> 192
<211> 449
<212> DNA
<213> Homo sapiens
```

```
<210> 193
<211> 372
<212> DNA
<213> Homo sapiens
```

```
<210> 194
<211> 309
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 140, 205
```


<212> DNA

<213> Homo sapiens

<400> 198

```
gtatcgacgt agtgggtctcc caagcagtgg gaagaaaacg tgaaccaatt aaaatgtatc 60
agatacccca aagaaaggcg cttgagtaaa gattccaagt gggtcacaat ctcagatctt 120
aaaattcagg ctgtcaaaga gatttgctat gaggttgctc tcaatgactt caggcacagt 180
cggcaggaga ttgaagccct ggccattgtc aagatgaagg agctttgtgc catgtatggc 240
aagaaagacc ccaatgagcg ggactcctgg agaccactac gtcgatac 288
```

<210> 199

<211> 1027

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 17, 21, 36, 39, 40, 42, 63, 98, 116, 145, 162, 173, 865,
885, 891, 916, 924, 927, 929, 934, 942, 949, 976, 983, 988,
989, 1009, 1014

<223> n = A,T,C or G

<400> 199

```
gcttttttggg aaaaacncaa ntgggggaaa gggggnttnn tngcaagggg ataaaggggg 60
aancccaggg tttccccatt cagggaggtg taaaaagncg gccaggggat tgtaanagga 120
ttcaataata gggggaatgg gccnngaagt tgcaaggttc cngcccgcc tgnccgcggg 180
atttagtgac attacgacgs tggtataaaa gtgggsccaa waaatatttg tgatgtgatt 240
tttsgaccag tgaaccatt gwacaggacc tcatttccty tgagatgrta gccataatca 300
gataaaaagrt tagaagtytt tctgcacggt aacagcatca ttaaatggag tggcatcacc 360
aatttcaccc tttgttagcc gataccttcc ccttgaaggc attcaattaa gtgaccaatc 420
gtcatacgag aggggatggc atggggattg atgatgatat caggggtgat accttcacag 480
gtgaaaggca taccctcttg tctatactga ataccacaag tacccttttg accatgtcga 540
ctagcaaat tgtctccaat ctgtgtwatc cctaacagag cgtaccctta ttttcaaaa 600
tttatatcct tcttgattga gagttaccat aacctgatcc acaatgcccg tctcgctwgt 660
tctgagaaaa gtgctacagt ctctcttggg atagcgtcta ttggtgctct ccaattcatc 720
ttcatttttc aggcaagggtg aactgttttg cctataataa cmtcatctcc tgatacmcga 780
aaccckkgga rctatcaaac catcatcatc cagcgttckt watgtymcta aatccctatt 840
gcggcgcgct gcagggtcaac atatngaaa acccccacc ccttnggagc ntaccttgaa 900
ttttccatat gtccntaaa ttanctngnc ttancttggc cntaacctnt tccggtttaa 960
attgtttccg ccccnttcc cnccttnna accggaaacc ttaattttna accngggggt 1020
cctatcc 1027
```

<210> 200

<211> 207

<212> DNA

<213> Homo sapiens

<400> 200

```
agtacatta cgacgctggc catcttgaat cctagggcat gaagttgccc caaagttcag 60
cacttggtta agcctgatcc ctctggttta tcacaaagaa taggatggga taaagaaagt 120
ggacacttaa ataagctata aattatatgg tcttgtcta gcaggagaca actgcacagg 180
tatactacca gcgtcgtaat gtcacta 207
```

<210> 201

<213> Homo sapiens

tgggcacctt	caatatctat	taaaagcaca	aatactgaag	aacacaccaa	gactatcaat	60
gaggttacat	ctggagtcct	cgatatatca	ggaaaaaatg	aagtgaacat	tcacagagtt	120
ttacttcttt	gggaactcaa	atgctagaaa	agaaaagggt	gccctctttc	tctggcttcc	180
tggtcctatc	cagcgtcgta	atgtcacta				209

<213> Homo sapiens

<223> n = A, T, C or G

ntacgctgca	acactgtgga	gccactgggt	tttattcccg	gcaggttatc	cagcaaacag	60
tcactgaaca	caccgaagac	cgtggatatg	taaccgttca	cagtaatcgt	tccagtcgtc	120
tgcgggaccc	cgacgagcgt	cactgggtac	agaccagatt	cagccggaag	agaaagcgcc	180
gcaggggagag	actcgaactc	cactccgctg	gtgagcagcc	ccatgttttc	aactcgaagt	240
tcaaacggca	ttgggttata	taccatcagc	tgaacttcac	acacatctcc	ttgaaccac	300
tggaaatcta	ttttcttggt	ccgctcttct	ccacagtgtt	gcagcgtaa		349

<213> Homo sapiens

tgtctctctt	gccttaccaa	cccaaagccc	actgtgaaat	atgaagtgaa	tgacaaaatt	60
cagtttttcaa	cgcaatatag	tatagttttat	ctgattcttt	tgatctccag	gacactttta	120
acaactgcta	ccaccaccac	caacctaggg	at ttaggatt	ctccacagac	cagaaattat	180
ttctcctttg	agtttcaggc	tcctctggga	ctcctgtttca	tcaatgggtg	gtaaatggct	240
a						241

<213> Homo sapiens

tagccatttta	ccaccatct	gcaaaccswg	acmwwcargr	cygwackya	ggcgatttga	60
agtactgtta	atgctctgat	catgttagtt	acataagtgt	ggtcagttta	caaaaattca	120
cagaactaaa	tactcaatgc	tatgtgttca	tgtctgtgtt	tatgtgtgtg	taatgtttca	180
attaagtttt	tttaaaaaaa	agagatgatt	tccaaataag	aaagccgtgt	tggtaggca	240
agaggagc						248

<211> 505

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 447
<223> n = A,T,C or G

<400> 205
tacgctgcaa cactgtggag ccattcatatc aggtccctaa ttaaggaaca agtgattatg 60
ctacctttgc acggttaggg taccgcggcc gttaaacaatg tgtcactggg caggcggtgc 120
ctctaatact ggtgatgcta gaggtgatgt ttttggtaaa caggcggggt aagatttgc 180
gagttccttt tacttttttt aacctttcct tatgagcatg cctgtgttgg gttgacagt 240
ggggttaataa tgacttggtg gttgattgta gatattgggc tggttaattgt cagttcagt 300
ttttaatctg acgcaggctt atgcggagga gaattgtttc atgttactta tactaacatt 360
agttcttcta tagggtgata gattgggtcca attgggtgtg aggagtgcag ttatatgttt 420
gggatttttt aggtagtggg tgttgancctt gaacgctttc ttaattgggtg gctgctttta 480
rgcctactat ggggtggtaaa tggct 505

<210> 206
<211> 179
<212> DNA
<213> Homo sapiens

<400> 206
tagactgact catgtccctt accaaagccc atgtaaggag ctgagttcctt aaagactgaa 60
gacagactat tctctggaga aaaataaaat ggaaattgta ctttaaaaaa aaaaaaatc 120
ggccgggcat ggtagcacac acctgtaatc ccagctacta ggggacatga gtcagtcta 179

<210> 207
<211> 176
<212> DNA
<213> Homo sapiens

<400> 207
agactgactc atgtccccta cccacacctt tgctgtgctg ccgtgttcctt aacagggtcac 60
agactggtac tggtcagtgg cctgggggtt ggggacctct attatatggg atacaaattt 120
aggagtgtga attgacacga tttagtgtact gatgggatat ggggtggtaaa tggcta 176

<210> 208
<211> 196
<212> DNA
<213> Homo sapiens

<400> 208
agactgactc atgtccccta tttaacaggg tctctagtgc tgtgaaaaaa aaaaatgctg 60
aacattgcat ataacttata ttgtaagaaa tactgtacaa tgactttatt gcatctgggt 120
agctgtaagg catgaaggat gccagaagt ttaaggaata tgggtggtaa atggctaggg 180
gacatgagtc agtcta 196

<210> 209
<211> 345
<212> DNA
<213> Homo sapiens

<220>
 <221> misc_feature
 <222> 53, 56
 <223> n = A,T,C or G

<400> 209
 gacgcttggc cacttgacac cttttatatt ttaaggattc ttaagtcatt tangtnactt 60
 tgtaagtttt tcctgtgccc ccataagaat gatagcttta aaaattatgc tggggtagca 120
 aagaagatac ttctagcttt agaattgtgt ggtatagcca ggattcttgt gaggaggggt 180
 gatttagagc aaattttctta ttctccttgc ctcatctgtta acatggggat aataatagaa 240
 ctggccttgac aaggttggaa ttagtattac atggtaaata catgtaaaat gtttagaatg 300
 gtgccaagta tctaggaagt acttgggcat ggggtgtaaa tggct 345

<210> 210
 <211> 178
 <212> DNA
 <213> Homo sapiens

<400> 210
 gacgcttggc cacttgacac tagagtaggg tttggccaac tttttctata aaggaccaga 60
 gagtaaatat ttcaggcttt gtgggttgtg cagtctctct tgcaactact cagctctgcc 120
 attgtagcat agaaatcagc catagacagg acagaaatga atgggtggta aatggcta 178

<210> 211
 <211> 454
 <212> DNA
 <213> Homo sapiens

<400> 211
 tgggcacctt caatatctat ccagcgcctc taaattcgct tttttcttga ttaaaaattt 60
 caccacttgc tgtttttgct catgtatacc aagtagcagt ggtgtgaggc catgcttggt 120
 ttttgattcg atatcagcac cgtataagag cagtgccttg gccattaatt tatcttcatt 180
 gtagacagca tagtgtagag tggatatctc atactcatct ggaatatttg gatcagtgcc 240
 atgttccagc aacattaacg cacattcatc ttcttggcat tgtacggcct ttgtcagagc 300
 tgtcctcttt ttgtttgtcaa ggacattaag ttgacatcgt ctgtccagca cgagttttac 360
 tacttctgaa ttcccatttg cagaggccag atgtagagca gtcctctttt gcttgtccct 420
 cttgttcaca tcagtgtccc tgagcataac ggaa 454

<210> 212
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 212
 tccgttatgc caccagaaaa acctactgga gttacttatt aacatcaagg ctggaaccta 60
 tttgcctcag tcctatctga ttcattgagc catgggttatt actgatcgca ttgaaaacat 120
 tgatcacctg gggtttctta tttatcgact gtgtcatgac aaggaaactt acaaactgca 180
 acgcagagaa actattaaag gtattcagaa acgtgaagcc agcaattggt tcgcaattcg 240
 gcattttgaa aacaaatttg ccgtggaaac ttttaatttg tcttgaacag tcaagaaaaa 300
 cattattgag gaaaattaat atcacagcat aacggaa 337

<210> 213
 <211> 715

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 552, 630, 649, 657, 691, 693, 697
<223> n = A,T,C or G

<400> 213
tcgggtgatg cctcctcagg catcttccat ccactctctc aagattagct gtcccaaagt 60
tttttccttc tcttctttac tgataaattt ggactccttc ttgacactga tgacagcttt 120
agtatccttc ttgtcacctt gcagacttta aacataaaaa tactcattgg ttttaaaagg 180
aaaaaagtat acattagcac tattaagctt ggccttgaaa cattttctat cttttattaa 240
atgtcggtta gctgaacaga attcatttta caatgcagag tgagaaaaga agggagctat 300
atgcatttga gaatgcaagc attgtcaaata aaacatttta aatgctttct taaagtgagc 360
acatacagaa atacattaag atattagaaa gtgtttttgc ttgtgtacta ctaattaggg 420
aagcaccttg tatagttcct cttctaaaat tgaagtagat tttaaaaacc catgtaattt 480
aattgagctc tcagttcaga ttttaggaga attttaacag ggatttggtt ttgtctaaat 540
tttgtcaatt tntttagtta atctgtataa ttttataaat gtcaaactgt atttagtcog 600
ttttcatgct gctatgaaag aaatacccan gacagggtta tttataaang gaaagangtt 660
aatttgactc ccagttcaca ggcctgagga ngnatcnccc gaaatcctta ttgcg 715

<210> 214
<211> 345
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 8, 15
<223> n = A,T,C or G

<400> 214
ggtaangngc ataentcggg gctccggccg ccggagtcgg gggattcggg tgatgcctcc 60
tcaggcccac ttgggcctgc ttttcccaaa tggcagctcc tctggacatg ccattccttc 120
tcccacctgc ctgattcttc atatgttggg tgtccctggt tttctgggtc tatttcctga 180
ctgctgttca gctgccactg tcctgcaaag cctgcctttt taaatgcctc accattcctt 240
catttgtttc ttaaataatg gaagtgaag tgccacctga ggccgggcac agtggctcac 300
gcctgtaatc ccagcacttt gggagcctga ggaggcatca cccga 345

<210> 215
<211> 429
<212> DNA
<213> Homo sapiens

<400> 215
ggtgatgcct cctcaggcga agctcaggga ggacagaaac ctcccgtgga gcagaagggc 60
aaaagctcgc ttgatcttga ttttcagtac gaatacagac cgtgaaagcg gggcctcacg 120
atccttctga ccttttgggt ttttaagcagg aggtgtcaga aaagttacca cagggataac 180
tggttgttgg cggccaagcg ttcatagcga cgtcgtttt ttgatccttc atgtcggctc 240
ttcctatcat tgtgaagcag aattcaccaa gcgttggtt gttcacccac taatagggaa 300
cgtgagctgg gtttagaccg tcgtgagaca ggtaggttt accctactga tgatgtgtkg 360
ttgccatggt aatcctgctc agtacgagag gaaccgcagg ttcasacatt tgggtgtatgt 420
gcttgccctt 429

<210> 216
 <211> 593
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 15, 429, 446, 498, 512, 538, 543, 557
 <223> n = A,T,C or G

<400> 216
 tgacacctat gtcnngcatc tgttcacagt ttccacaaat agccagcctt tggccacctc 60
 tctgtcctga ggtatacaag tatatcagga ggtgtatacc ttctcttctc ttccccacca 120
 aagagaacat gcaggctctg gaagctgtct taggagcctt tgggctcaga atttcagagt 180
 cttgggtacc ttggatgtgg tctggaagga gaaacattgg ctctggataa ggagtacagc 240
 cggaggaggg tcacagagcc ctcaagctcaa gcccctgtgc cttagtctaa aagcagcttt 300
 ggatgaggaa gcagggttaag taacatacgt aagcgtacac aggtagaaag tgctgggagt 360
 cagaattgca cagtgtgtag gagtagtacc tcaatcaatg agggcaaadc aactgaaaga 420
 agaagaccna ttaatgaatt gcttangggg aaggatcaag gctatcatgg agatctttct 480
 aggaagatta ttgtttanaa ttatgaaagg antagggcag ggacagggcc agaagtanaa 540
 ganaacattg cctatanccc ttgtcttgca cccagatgct ggacaagggtg tca 593

<210> 217
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 217
 tgacaccttg tccagcatct gacgtgaaga tgagcagctc agaggagggtg tcctggattt 60
 cctggttctg tgggctccgt ggcaatgaat tcttctgtga agtggatgaa gactacatcc 120
 aggacaaatt taatcttact ggactcaatg agcagggtccc tcactatcga caagctctag 180
 acatgatctt ggacctggag cctgatgaag aactggaaga caacccaac cagagtgacc 240
 tgattgagca ggcagccgag atgctttatg gattgatcca cgcccgctac atccttacca 300
 accgtggcat cgcccagatg ctggacaagg tgtca 335

<210> 218
 <211> 248
 <212> DNA
 <213> Homo sapiens

<400> 218
 tacgtactgg tcttgaaggc cttaggtaga gaaaaaatgt gaatatttta tcaaagacta 60
 tgtatgaaat gggactgtaa gtacagaggg aaggggtggc cttatcgcca gaagttggta 120
 gatgcgtccc cgtcatgaaa tgttgtgtca ctgcccagca tttgccgaat tactgaaatt 180
 ccgtagaatt agtgcaaatt ctaacgttgt tcatctaaga ttatgggtcc atgtttctag 240
 tactttta 248

<210> 219
 <211> 530
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature
 <222> 49, 216, 265, 275, 281, 296, 371, 407, 424, 429, 454, 456,
 458, 464, 474, 476, 506, 509, 527, 530
 <223> n = A,T,C or G

<400> 219
 tgacgcttgg ccacttgaca caagtagggg ataaggacaa agacccatna ggtggcctgt 60
 cagccttttg ttactgttgc ttccctgtca ccacggcccc ctctgtaggg gtgtgctgtg 120
 ctctgtggac attggtgcat ttccacacat accattctct ttctgcttca cagcagtcct 180
 gaggcgggag cacacaggac taccttgtca gatgangata atgatgtctg gccaaactac 240
 cccccaacct tctcactagt tatangaaga gccangccta naaccttcta tcctgncccc 300
 ttgccttatg acctcatccc tgttccatgc cctattctga tttctggtga actttggagc 360
 agcctggttt ntccctcctca ctccagcctc tctccatacc atgggtanggg ggtgctgttc 420
 cacncaaang gtcaggtgtg tctggggaat cctnananct gccnggagtt tccnangcat 480
 tcttaaaaac cttcttgctt aatcanatng tgtccagtgg ccaaccntcn 530

<210> 220
 <211> 531
 <212> DNA
 <213> Homo sapiens

<400> 220
 tgacgcttgg ccacttgaca ctaaataagca tcttctaaag gcctgattca gagttgtgga 60
 aaattctccc agtgtcaggg attgtcagga acagggctgc tcctgtgctc actttacctg 120
 ctgtgtttct gctggaaaag gaggggaagag gaatggctga tttttaccta atgtctccca 180
 gtttttcata ttcttcttgg atcctcttct ctgacaactg ttcccttttg gtcttcttct 240
 tcttgctcag agagcaggtc tctttaaaac tgagaaggga gaatgagcaa atgattaaag 300
 aaaacacact tctgaggccc agagatcaaa tattaggtaa atactaaacc gcttgccctgc 360
 tgtggctact tttctcctct ttacatgct ctatccctct atccccacc tattcatatg 420
 gcttttatct gccaaagttat ccggcctctc atcaaccttc tcccctagcc tactggggga 480
 tatocatctg ggtctgtctc tgggtgtattg gtgtcaagtg gccaaagcgtc a 531

<210> 221
 <211> 530
 <212> DNA
 <213> Homo sapiens

<400> 221
 attgacgctt ggccacttga caccgcctg cctgcaatac tggggcaagg gccttcaactg 60
 ctttccctgcc accagctgcc actgcacaca gagatcagaa atgctaccaa ccaagactgt 120
 tggctcctcag cctctctgag gagaaagagc agaagcctgg aagtcagaag agaagctaga 180
 toggctacgg ccttggcagc cagcttcccc acctgtggca ataaagtcgt gcatggctta 240
 acaatggggg caacctcctga gaaacacatt gttaggcaat tcggcgtgtg ttcacagag 300
 catatttaca caaacctcga tagtgcagcc tactatccac tattgctcct acgctgcaaa 360
 ootgaacagc atgggactgt actgaatact ggaagcagct ggtgatggta cttatttgtg 420
 tatctaaaca cagagaaggc acagtaagaa tatggtatca taaacttaca gggaccgcca 480
 tcctatatgc agtctgttgt gacaaaaatg tgtcaagtgg ccaagcgtca 530

<210> 222
 <211> 578
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc_feature
 <222> 308, 381, 561, 570, 573
 <223> n = A,T,C or G

<400> 222
 tgtatcgacg tagtgggtctc cgggctacta ggccgttggtg tgctggtagt acctggttca 60
 ctgaaaggcg catctccctc cccgcgtcgc cctgaagcag ggggaggact tcgcccagcc 120
 aaggcagttg tatgagtttt agctgcggca cttcgagacc tctgagccca cctccttcag 180
 gagccttccc cgattaagga agccagggtg aggattcctt cctccccag acaccacgaa 240
 caaaccacca cccccctat tctggcagcc catatacatc agaacgaaac aaaaataaca 300
 aataaacnaa aaccaaaaaa aaaagagaag gggaaatgta tatgtctgtc catcctgttg 360
 ctttagcctg tcagctccta nagggcaggg accgtgtcct ccgaatggtc tgtgcagcgc 420
 cgactgcggg aagtatcgga ggaggaagca gagtcagcag aagttgaacg gtgggcccgg 480
 cggtctcttg gggtctgtgt tgtacttcga gaccgcttc gctttttgtc ttagatttac 540
 gtttgcctct tggagtggga naccactacn tcnataca 578

<210> 223
 <211> 578
 <212> DNA
 <213> Homo sapiens

<400> 223
 tgtatcgacg tagtgggtctc ctcttgcaaa ggactggctg gtgaatgggt tccctgaatt 60
 atggacttac cetaaacata tcttatcatc attaccagtt gcaaaatatt agaatgtggt 120
 gtcactgttt catttgatcc ctagaagggt agtcttagat atgttacttt aacctgtatg 180
 ctgtagtgct ttgaatgcat tttttgtttg catttttgtt tgcccaacct gtcaattata 240
 gctgcttagg tctggactgt cctggataaa gctgttaaaa tattcaccag tccagccatc 300
 ttacaagcta attaatgcaa ctaaatgctt ccttgttttg ccagacttgt tatgtcaatc 360
 ctcaatttct gggttcattt tgggtgccct aaatcttagg gtgtgacttt cttagcatcc 420
 tgtaacatcc attcccaagc aagcacaact tcacataata ctttccagaa gttcattgct 480
 gaagcctttc cttcaccagc cggagcaact tgattttcta caacttcctt catcagagcc 540
 acaagagtat gggatatgga gaccactacg tcgataca 578

<210> 224
 <211> 345
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 13
 <223> n = A,T,C or G

<400> 224
 tgtatcgacg tantgggtctc ccaagggtgct gggattgcag gcatgagcca ccactcccag 60
 gtggatcttt ttctttatac ttacttcatt aggtttctgt tattcaagaa gtgtagtggt 120
 aaaagtcttt tcaatctaca tggttaaata atgatagcct gggaaataaa tagaaatttt 180
 ttctttcatc tttaggttga ataaagaaac agaaaaata gaacatactg aaaataatct 240
 aagttccaac catagaagaa ctgcagaaga aatgaagaaa gtgatgatga tttagatttt 300
 gatattgatt tagaagacac aggaggagac cactacgtcg ataca 345

<210> 225
 <211> 347
 <212> DNA

<213> Homo sapiens

<400> 225

```
tgtatcgacg tagtgggtctc caaactgagg tatgtgtgcc actagcacac aaagccttcc 60
aacagggacg caggcacagg cagtttaaaag ggaatctgtt tctaaattaa tttccacctt 120
ctctaagtat tctttcctaa aactgatcaa ggtgtgaagc ctgtgctctt tcccaactcc 180
cctttgacaa cagccttcaa ctaacacaag aaaaggcatg tctgacactc ttcctgagtc 240
tgactctgat acgttggttct gatgtctaaa gagctccaga acaccaaaag gacaattcag 300
aatgctggtg tataacagac tccaatggag accactacgt cgataca 347
```

<210> 226

<211> 281

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 4, 6, 11

<223> n = A,T,C or G

<400> 226

```
aggngnggga ntgtatcgac gtagtgggtct cccaacagtc tgtcattcag tctgcagggtg 60
tcagtgtttt ggacaatgag gcaccattgt cacttattga ctctcagct ctaaagtctg 120
aaattaaatc ttgtcatgac aagtctggaa ttctgatga ggttttacaa agtatatttg 180
atcaatactc caacaaatca gaaagccaga aagaggatcc tttcaatatt gcagaaccac 240
gagtggattt acacacctca ggagaccact acgtcgatac a 281
```

<210> 227

<211> 3646

<212> DNA

<213> Homo sapiens

<400> 227

```
gggaaacact tcttcccagc cttgtaaggg ttggagccct ctccagtata tgctgcagaa 60
tttttctctc ggtttctcag aggattatgg agtccgcctt aaaaaaggca agctctggac 120
actctgcaaa gtagaatggc caaagtttgg agttgagtgg ccccttgaag ggtcactgaa 180
cctcacaatt gttcaagctg tgtggcgggt tgttactgaa actcccgcc tccctgatca 240
gtttccctac attgatcaat ggctgagttt ggtcaggagc accccttccg tggtccact 300
catgcaccat tcataatttt acctccaagg tctcctgag ccagaccgtg ttttcgctc 360
gacctcagc cggttcggct cgccctgtac tgctctctc tgaagaagag gagagtctcc 420
ctcaccagc cccaccgct taaaaccagc ctactccctt agggcatcc catgtctcct 480
cggctatgtc cctgtaggc tcatcaccca ttgctcttg gttgcaaccg tgggtgggag 540
aagtagcccc tctactacca ctgagagagg cacaagtccc tctgggtgat gagtgtcca 600
cccccttccg ggtttatgtc cttctttct acttctgact tgtataattg gaaaaccat 660
aatcctccct tctctgaaaa gccccaggct ttgacctcac tgatggagtc tgtactctgg 720
acacattggc ccacctggga tgactgtcaa cagctccttt tgacctttt cacctctgaa 780
gagagggaaa gtatccaaag agaggccaaa aagtacaacc tcacatcaac caataggccg 840
gaggaggaag ctagaggaat agtgattaga gacccaattg ggacctaat gggaaccaa 900
tttctcaagt ggagggagaa cttttgacga tttccaccg tatctcctcg tgggtattca 960
gggagctgct cagaaacct taaacttgtc taaggcgact gaagtcgtcc aggggcatga 1020
tgagtcacca ggagtgttt tagagcacct ccaggaggct tatcagattt acacccttt 1080
tgacctggca gccccgaaa atagccatgc tcttaatttg gcatttgtg ctcaggcagc 1140
cccagatagt aaaaggaaac tccaaaaact agagggattt tgctggaatg aataccagtc 1200
agcttttaga gatagcctaa aaggtttttg acagtcaaga ggttgaaaaa caaaaacaag 1260
```

```

cagctcaggc agctgaaaaa agccactgat aaagcatcct ggagtatcag agtttactgt 1320
tagatcagcc tcatttgact tccccctcca catggtggtt aaatccagct acactacttc 1380
ctgactcaaa ctccactatt cctgttcatt actgtcagga actggttgaa actactgaaa 1440
ctggccgacc tgatcttcaa aatgtgcccc taggaaagggt ggatgccacc atgttcacag 1500
acagtagcag cttcctcgag aagggactac gaaaggccgg tgcagctggt accatggaga 1560
cagatgtggt gtgggctcag gctttaccag caaacacctc agcacaaaag gctgaattga 1620
tcgccctcac tcaggctctc cgatggggta aggatattaa cgtaaact gacagcagg 1680
acgcctttgc tactgtgcat gtacgtggag ccatctacca ggagcgtggg ctactcacct 1740
cagcagggtg ctgtaatcca ctgtaaagga catcaaaagg aaaacacggc tgttgccgt 1800
ggtaaccaga aagctgattc agcagctcaa gatgcagtgt gactttcagt cagcctcta 1860
aacttgctgc ccacagtctc ctttccacag ccagatctgc ctgacaatcc cgcatactca 1920
acagaagaag aaaactggcc tcagaactca gagccaataa aaatcaggaa ggttggtgga 1980
ttcttcctga ctctagaatc ttcatacccc gaactcttgg gaaaacttta atcagtcacc 2040
tacagtctac caccatttta ggaggagcaa agctacctca gctcctccgg agcgttttta 2100
agatcccca tcttcaaagc ctaacagatc aagcagctct ccggtgcaca acctgcgcc 2160
aggtaaagtc caaaaaagg cctaaacca gccaggcca ccgtctcaa gaaaactcac 2220
caggagaaaa gtgggaaatt gactttacag aagtaaaacc acaccgggct gggtagaaat 2280
accttctagt actggtagac accttctctg gatggactga agcatttgct accaaaaacg 2340
aaactgtcaa tatggtagtt aagtttttac tcaatgaaat catccctoga catgggctgc 2400
ctgtttgcca tagggtctga taatggaccg gccttcgcct tgtctatagt ttagtcagtc 2460
agtaaggcgt taaacattca atggaagctc cattgtgcct atcgacccca gagctctggg 2520
caagtagaac gcatgaactg caccctaaaa aacactctta caaaattaat cttagaaacc 2580
ggtgtaaat gtgtaagtct ccttctctta gccctactta gagtaagggt gagtaagggt 2640
tgggctgggt tcttaccttt tgaaatcatg tatgggaggg tgctgcctat cttgcctaag 2700
ctaagagatg cccaattggc aaaaatatca caaactaatt tattacagta cctacagtct 2760
ccccaacagg tacaagatat catectgcca cttgttcgag gaacccatcc caatccaatt 2820
cctgaacaga cagggccctg ccattcattc ccgccagggt acctgttggt tgttaaaaaag 2880
ttccagagag aaggactccc tectgcttgg aagagacctc acaccgtcat cacgatgcca 2940
acggctctga aggtggatgg cattcctgag tggattcatc actcccgcat caaaaaggcc 3000
aacagagccc aactagaaac atgggtcccc agggctgggt caggccctt aaaactgcac 3060
ctaagttggg tgaagccatt agattaattc ttttcttaa ttttgtaaaa caatgcatag 3120
cttctgtcaa acttatgtat ctttaagactc aatataacc ctttggtata actgaggaat 3180
caatgatttg attcccccaa aaacacaagt ggggaatgta gtgtccaacc tggtttttac 3240
taacctgtt tttagactct ccctttcctt taatcactca gcttgtttcc acctgaattg 3300
acttccctt agctaagagc gccagatgga ctccatcttg gctctttcac tggcagccgc 3360
ttctcaagg acttaacttg tgcaagctga ctcccagcac atccaagaat gcaattaaact 3420
gataagatac tgtggcaagc tatatccgca gttcccagga attcgtccaa ttgatcacag 3480
cccctctacc cttcagcaac caccacctg atcagtcagc agccatcagc accgaggcaa 3540
ggccctccac cagcaaaaag attctgactc actgaagact tggatgatca ttagtatatt 3600
tagcagtaaa gttttttttt ctttttctt ctttttttct cgtgcc 3646

```

```

<210> 228
<211> 419
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 402
<223> n = A,T,C or G

```

```

<400> 228
taagagggtg caagatctaa gcacagccgt caatgcagaa cacagaacgt agcctggtaa 60
gtgtgttaag agtgggaatt tttggagtag agagtaaggc acctaaccct agctgggggt 120

```

tgggtgacggt cccagatggc ttacagaaga aagtgtcctg agatgagttt ttaagaatga 180
 ataaggatag acacaagtga ggactgactt ggcagtgggt aatgggtgggt ggcaaaaaac 240
 ttcgcatgta tggaaactgc acgtacagga atgaagaatg agactgtgtg gtgtttaatg 300
 agctgcaaact actaatttta tcctgaaagt tttgaagagt taactaaaaa gtatttttta 360
 gtaaggaaat aaccctacat ttcaggggta ttgtttgttt anatattgaa ggtgcccac 419

<210> 229
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 229
 aagaggggtac ctgtatgtag ccatgggtggc aatgagagac tgattactac ctgctggaga 60
 ttgtttaagt gagttaatat attaaggata aaggggagcca ggttttttga ctgttggaga 120
 aggaaattac agatattgaa ggtcccac 148

<210> 230
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 230
 taagagggta cmaaaaaaaaa aaaatagaac gaatgagtaa gacctactat ttgatagtag 60
 aacaggggtga ctatagtcaa tgataactta attatacatt taacatagag tgtaattgga 120
 ttgtttgtaa ctggaaggat aaatgcttga gaggatggat accccattct ccatgatgta 180
 cttattttcac attacatgcc tgtatcaaag catctcatat accctataaa tatgtacacc 240
 tactatgtac cctctta 257

<210> 231
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 231
 taagagggta cgggtatttg ctgatgggat ttttttttct ttctttttct ttggaaaaca 60
 aaatgaaagc cagaacaaaa ttattgaaca aaagacaggg actaaatctg gagaaatgaa 120
 gtccctcac ctgactgcc tttcattcta tctgaccttc cagtctaggt taggagaata 180
 ggggggtggag gggattaatc tgatacaggt atatttaaag caactctgca tgtgtgccag 240
 aagtccatgg taccctctta 260

<210> 232
 <211> 596
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 437, 440, 461, 536, 541, 565, 580, 587, 590, 595
 <223> n = A,T,C or G

<400> 232
 tgctcctctt gccttaccaa ccacaaatta gaaccataat gagatgtcac ctcatacctg 60
 gtgggattaa cattatttta aaaatcagaa gtattgacaa ggatgtgaag aaattagaac 120
 atctgtgcac tgttgggtggg aatgtaaaaa aggtgtggcc actatgggta acagcatgaa 180

```

ggttcctcaa aaaaaatttt ttttaatcta ctctatgatc gatcttgagg ttgtttatgc 240
aaaagaactg aaatcaggat tttgaggaaa tattcacatt cccacatcca tttctgcttt 300
attcataata ctcaagagat ggaaacaacc taaatgtcca tcccgggatg aatggataaa 360
cacagtgtgg tatatgcata caatggaata ttatttagtc tttaaaaaga aaaattctat 420
catatactac aacttanatn aaccttgagg acacaatgct nagtgaaata agccacggaa 480
ggaogaatac tgcattattc ccttatatga agtatctaaa gtggtcaaac tcttanagca 540
naaagtaaaa atgggtgggt gccanacagt tggttaggcn agaaganaan cctant 596

```

<210> 233

<211> 96

<212> DNA

<213> Homo sapiens

<400> 233

```

tottctgaag acctttcgcg actcttaagc tcgtggttgg taaggcaaga ggagcgttgg 60
taaggcaaga ggagcgttgg taaggcaaga ggagca 96

```

<210> 234

<211> 313

<212> DNA

<213> Homo sapiens

<400> 234

```

tgtaagtcca gcagtgtgat gataaaactt gaatggatca atagttgctt cttatggatg 60
agcaaagaaa gtagtttctt gtgatggaat ctgctcctgg caaaaatgct gtgaacgttg 120
ttgaaaagac aacaaagagt ttagagtagt acataaattt agaatagtag ataaacttag 180
aatagtacat aaacttagta cataaataat gcacgaagca ggggcagggc ttgagagaat 240
tgacttcaat ttgaaaagag tatctactgt aggttagatg ctctcaaaca gcatcacact 300
gctogactta caa 313

```

<210> 235

<211> 550

<212> DNA

<213> Homo sapiens

<400> 235

```

aacgaggaca gatccttaaa aagaatggtg agtgaaaaaa gtagaaaata agataatctc 60
caaagtccag tagcattatt taaacatttt taaaaaatac actgataaaa attttgtaca 120
tttcccaaaa atacatatgg aagcacagca gcatgaatgc ctatgggrtt gaggataggg 180
gttgggagta gggatgggga taaaggggga aaataaaaacc agagaggagt cttacacatt 240
tcatgaacca aggagtataa ttatttcaac tatttgtacc wgaagtccag aaagagtgga 300
ggcagaaggg ggagaagagg gcgaagaaac gtttttggga gaggggtccc asaagagaga 360
ttttcgcat gtggcgctac atacgttttt ccaggatgcc ttaagctctg caccctattt 420
ttctcatcac taatattaga ttaaaccctt tgaagacagc gtctgtggtt tctctacttc 480
agctttccct ccgtgtcttg cacacagtag ctgttttaca agggttgaac tgactgaagt 540
gagattattc 550

```

<210> 236

<211> 325

<212> DNA

<213> Homo sapiens

<400> 236

```

tagactgact catgtccctt accagagtag ctagaattaa tagcacaagc ctctacaccc 60

```

```

aggaactcac tattgaatac ataaatggaa tttattcagc cttaaaaagt ttggaaggaa 120
attctgacat atgctaaaac atggatgaac cttgaagact ttatgataag taaaagaagc 180
cagtcataaa aggaaaaata ttgcatgatt ccacttatat gaggtaccta gagtagtcaa 240
tttcatagaa acacaaaata gaatggtgtt tgccagggtt tttgaggaaa agggaatgac 300
aagttagggg acatgagtca gtcta 325

```

```

<210> 237
<211> 373
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 355
<223> n = A,T,C or G

```

```

<400> 237
tagactgact catgtcccct atctactcaa catttccact tgaagtctga taggcatctc 60
agacttatct tgtcccaaag caaactcttt atttcttttc atcctagtct ttatttcttg 120
tgctgtctta cccatctcaa aagagtgccaa aaatccacca agttgctgaa acagaaatct 180
aagaaatatc cttgattctt ctttttccca tctacttcac ttctaattca ttagtaaata 240
atctgtttca gaaaacaaaa cacctcatgt tctcactcat aagggggagt tgaacaatga 300
gaacacacag acacagggag gggaacatca cacaccacgg cccgtcaggg agtangggac 360
atgagtcagt cta 373

```

```

<210> 238
<211> 492
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 272, 310, 380, 435, 474, 484, 488
<223> n = A,T,C or G

```

```

<400> 238
tagactgact catgtcccct ataatgctcc caggcatcag aaagcatctc aaactggagc 60
tgacaccatg gcagaggttt caggtaagtc acaaaagggg tcctaaagaa tttgccctca 120
atatcagagt gattagaaga agtggacaga gctacccaag ttaaacadat gcgagataaa 180
aaaaatatgg cacttgtgaa cacacactac aggaggaaaa taaggaacat aatagcatat 240
tgtgctatta tgatgatgaa gaacctctct anaagaaaac ataaccaaaag aaacaaagaa 300
aattcctgcn aatgttttaat gctatagaag aaattaacaa aaacatatat tcaatgaatt 360
cagaaaagtt agcagggtcan aagaaaacaa atcaaagacc agaataatcc catttttagat 420
tgtogagtaa actanaacag aaagaatacc actggaaatt gaattcctac gtanggggaca 480
tgantcantc ta 492

```

```

<210> 239
<211> 482
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 245

```

<223> n = A,T,C or G

<400> 239

```

tggaaagtat ttaatgatgg gcaacttgct gtttacttcc tacatatccc atcatcttct 60
gtatTTTTTT aaataacttt tttttggatt tttaaagtaa ccttattctg agaggtaaca 120
tggattacat acttctaagc cattaggaga ctctatgtta aaccaaaagg aaatgttact 180
agatcttcat ttgatcaata ggatgtgata atcatcatct ttctgctcta atggaaaagt 240
actanaaaca tggaaccata atcttagatg aacaacgtta gaatttgcac taattctacg 300
gaatttcagt aattcggcaa atgtcgggca gtgacacaac atttcatgac ggggacgcat 360
ctaccaactt ctggcgataa gggccaccct tccctctgta cttacagtcc catttcatac 420
acagtctttg attaaatatt cacatTTTTT ctctacctaa agaccttcaa gaccagtaacg 480
ta                                                                                   482

```

<210> 240

<211> 519

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 491

<223> n = A,T,C or G

<400> 240

```

tgtatcgacg tagtgggtctc cccatgtgat agtctgaaat atagcctcat gggatgagag 60
gctgtgcccc agcccgcacac ccgtaaaggg tctgtgctga ggtggattag taaaagagga 120
aagccttgca gttgagatag aggaagggca ctgtctcctg cctgcccctg ggaactgaat 180
gtctcggtat aaaacccgat tgtacatttg ttcaattctg agataggaga aaaaccaccc 240
tatggcggga ggcgagacat gttggcagca atgctgcctt gttatgcttt actccacaga 300
tgtttgggag gagggaaaca taaatctggc ctacgtgcac atccaggcat agtacctccc 360
tttgaactta attatgacac agattccttt gctcacatgt ttttttgctg accttctcct 420
tattatcacc ctgtctctct accgcattcc ttgtgctgag ataataaaaa taatatcaat 480
aaaaacttga nggaactcgg agaccactac gtcgatata                                                                                   519

```

<210> 241

<211> 771

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 304, 402, 442, 463, 510, 541, 550, 567, 571, 596, 617, 624, 644, 648, 652, 667, 682, 686, 719, 722, 729, 732, 751, 752, 757, 758, 760, 763, 766, 769

<223> n = A,T,C or G

<400> 241

```

tgtatcgacg tagtgggtctc cactcccgcc ttgacggggc tgctatctgc cttccaggcc 60
actgtcacgg ctccggggtg gaagtcactt atgagacaca ccagtgtggc cttgttggct 120
tgaagctcct cagaggaggg tgggaacaga gtgaccgagg gggcagcctt gggctgacct 180
aggacgggtca gcttgggtccc tccgccaac acgagagtgc tgctgcttgt atatgagctg 240
cagtaataat cagcctcgtc ctacgcctgg agcccagaga tggtcaggga ggccgtgttg 300
ccanacttgg agccagagaa gcgattagaa acccctgagg gccgattacc gacctcataa 360
atcatgaatt tgggggcttt gcctgggtgc tgttgggtacc angagacatt attataacca 420

```



```

accaatccca cacggatact gagggacaag tatatcatcc catttcatcc ctacagcagc 60
aacttcatga ggcaggaggt attagtccca ttttacagaa gaggaaactg agacttaggg 120
agatcaagta atttgcccag gtcgcacaat tagtgataga gccagggctt gaagcgacgt 180
ctgtcttaag ccaatgaccc ctgcagatta ttagagcaac tgttctccac aacagtgtaa 240
gcctcttgct anaagctcag gtccacaagg gcagagattt ttgtctgttt tgotcattgc 300
tccttcccca ttgcttagag cagggctctgc cacgaancag gttctcaatg catagttatt 360
aaatgtatat aagagcaaac atatgttaca gagaactttc tgtatgcttg tcacttacat 420
gaatcacctg tganatgggt atgcttggtc cccantgttg cagatnaaga tattgaangt 480
gcccaaatca ctanttgcg ggcctgcan gtccancata t 521

```

<210> 246

<211> 482

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 464

<223> n = A,T,C or G

<400> 246

```

tggaaccaat ccaaataccc atcaatgata gactggataa agaaaatttg gcacatgttc 60
accatgaaat actatgcagc cataaaaaag gatgagttca tatcctttgc agggacatgg 120
atgaagctgg agaccatcat tctcagcaaa ctaacaaggg aacagaaaac caaacactgc 180
atgttctcac tcttaagtgg gagctgaaca atgagaacac atggacacag ggaggggaac 240
atcacacagt ggggcctgct ggtgggtagg ggtctagggg agggatagca ttaggagaaa 300
tacctaattg agatgacggg ttgatgggtg cagcaaacca ccatgacacg tgtataccta 360
tgtaacaaac ctgcatgttc tgcacatgta cccagaact taaagtgtta ataaaaaat 420
taagaaaaaa gttaagtatg tcatagatac ataaaatatt gtanatattg aaggtgcccc 480
aa 482

```

<210> 247

<211> 474

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 220, 255, 287, 312, 339, 374, 382, 403, 414, 426, 427, 428, 432, 433, 434, 435, 436, 465

<223> n = A,T,C or G

<400> 247

```

ttcgatacag gcacagagta agcagaaaaa tggctgtggt ttaaccaagt gagtacagtt 60
aagtgaagaa ggggcagaga agacaagggc atatgcaggg ggtgattata acagggtggt 120
gtgctgggaa gtgagggtac tcggggatga ggaacagtga aaaagtggca aaaagtggta 180
agatcagtgga attgtacttc tccagaattt gatttctggn ggagtcaaata aactatccag 240
tttgggggtat catanggcaa cagttgaggt ataggaggta gaagtcncag tgggataatt 300
gaggttatga anggtttggt actgactggt actgacaang tctgggttat gaccatggga 360
atgaatgact gtanaagcgt anaggatgaa actattccac ganaaagggg tccnaaaact 420
aaaaannnaa gnnnnnnggg aatattattt atgtggatat tgaangtgcc caaa 474

```

<210> 248

<211> 355

<213> Homo sapiens

<400> 251

```

tggtactcca ccatyatggg gtcaaccgcc atcctcgccc tcctcctggc tgtttctcaa 60
ggagtctgtg ccgaggtgca gctgrtgag tctggagcag aggtgaaaaa gtccggggag 120
tctctgaaga tctcctgtaa gggttctgga tacaccttta agatctactg gatcgccctgg 180
gtgcgccagt tgcccgggaa aggcctggag tggatggggc tcatctttcc tgatgactct 240
gataccagat acagcccgtc cttccaaggc caggtcacca tctcagtcga taagtccatc 300
agcaccgcct atctgcagtg gagtaccaa 329

```

<210> 252

<211> 536

<212> DNA

<213> Homo sapiens

<400> 252

```

tggtactcca ctcagcccaa ccttaattaa gaattaagag ggaacctatt actattctcc 60
caggctcttc tgctctaacc aggcttctgg gacagtatta gaaaaggatg tctcaacaag 120
tatgtagatc ctgtactggc ctaagaagtt aaactgagaa tagcataaat cagaccaaac 180
ttaatggctg ttgagacttg tgtcctggag cagctgggat aggaaaactt ttgggcagca 240
agaggaagaa ctgcctggaa gggggcatca tgttaaaaat tacaagggga acccacacca 300
ggcccccttc ccagctctca gcctagagta ttagcatttc tcagctagag actcacaact 360
tccttgctta gaatgtgcc a cgggggggag tccctgtggg tgatgaggct ctcaagagtg 420
agagtggcat cctatcttct gtgtgccac aggagcctgg cccgagactt agcaggtgaa 480
gtttctggtc caggctttgc ccttgactca ctatgtgacc tctggtggag taccaa 536

```

<210> 253

<211> 507

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 1

<223> n = A,T,C or G

<400> 253

```

ntgttgcgat ccagtaact cgggaagctg aggcgggag atcacctgag ctcaggaggt 60
tgaggccgca gtgagccggg accacgccac tacactccag cctggggcat agagtgagac 120
cctccaagac agaaaagaaa agaaaggaag ggaaagggaagg agggaaaagg aaaaggaaaa 180
ggaaaaggaa aaggaaaaga caagacaaaa caagacttga atttgatct cctgacttca 240
attttatgtt ctttctacac cacaattcct ctgcttacta agatgataat ttagaaaccc 300
ctcgttccat tctttacagc aagctggaag tttggtcaag taattacaat aatagtaaca 360
aatttgaata ttatatgcca ggtgttttct attcctgctc tcacttaatt ctcaccactc 420
tgatataaat acaattgtcg ccgggtgtgg tggctcatgc ctgtaatccc ggcacttttg 480
gagaccgagg tgggcggats gcaacaa 507

```

<210> 254

<211> 222

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 167

<223> n = A,T,C or G

<400> 254

```
ttggattggt cactgtgagg aagccaaatc ggatccgaga gtctttttct aaaggccagt 60
actggccaca ctttctcctg ccgccttcct caaagctgaa gacacacaga gcaaggcgct 120
tctgttttac tccccaatgg taactccaaa ccatagatgg ttagctnccc tgctcatctt 180
tccacatccc tgctattcag tatagtcctg ggaccaatcc aa 222
```

<210> 255

<211> 463

<212> DNA

<213> Homo sapiens

<400> 255

```
tggtgcatc cataaatgct gaaatggaaa taaacaacat gatgagggag gattaagttg 60
gggagggagc acattaaggt ggccatgaag tttgttgga gaagtgaact ttgaacaagg 120
ccttggtgtt aagagctgat gagagtgtcc cagacagagg ggccactggt acaatagacg 180
agatgggaga gggcttgga ggtgtgcaa ataggaagga gtttgttctg gtatgagtct 240
agtgaacaca gaggcgagag gccctgggtg gtgcagctgg agagtatatc agaataacat 300
taggcctgt gggggactgt agactgtcag caataatcca cagtttggt tttattctaa 360
gagtgatggg aagccgtgga aaggggggta agcaaggagt gaaattatca gatttacagt 420
gataaaaata aattgggtctg gctactgggg aaaaaaaaa aaa 463
```

<210> 256

<211> 262

<212> DNA

<213> Homo sapiens

<400> 256

```
ttggattggt caaactgctc aactctacyt ttctctcttc ttcttaaaaa attaatgaat 60
ccaatacatt aatgccaaaa cccttgggtt ttatcaatat ttctgttaaa aagtattatc 120
cagaactgga cataatacta cataataata cataacaacc ccttcatctg gatgcaaaca 180
tctattaata tagcttaaga tcactttcac tttacagaag caacatcctg ttgatgttat 240
tttgatgttt ggaccaatcc aa 262
```

<210> 257

<211> 461

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 25, 32, 38, 71, 72

<223> n = A,T,C or G

<400> 257

```
gnggnnnnnn nnncaattcg actcngttcc cntggtancc ggtcgacatg gccgcgggat 60
taccgcttgt nncgtggggg gtatggggga ctatgaccgc ttgtagctgg ggggtgatgg 120
gggactatga ccgctttag mtggkgtgt atgggggact atgaccgctt gtcgggtggt 180
cggataaacc gagcaaggg acgtgatcga agctgcgttc ccgctcttc gcatcggtag 240
ggatcatgga cagcaatata cgcattcgyc tgaaggcggt cgaccatcgc gtgctcgatc 300
aggcgaccgg cgacatcgcc gacaccgcac gccgtaccgg cgcgctcatc cgcggtcoga 360
tcccgcttcc caccgcgcatc gagaagttca cgggtcaaccg tggcccgcac gtcgacaaga 420
```


<220>
 <221> misc_feature
 <222> 662, 680, 685, 698, 707, 709, 734, 740, 741
 <223> n = A,T,C or G

<400> 261
 ttgggcacct tcaatatcaa tagctaacat ttattgagtg tttatcgtat cataaaacac 60
 tgttctaagc ctttaaacgt actaattcat ttaatgctca taatcacttt agaaggtggg 120
 tactagtatt agtctcattt acagatgcaa catgcaggca cagagagggt aattaacttg 180
 cccaaggtaa cacagctaag aaatagaaaa aatattgaat ctggaaagtt gggcttctgg 240
 gtaaccacaca gagtcttcaa tgagcctggg gcctcactca gtttgctttt acaaagcgaa 300
 tgagtaacat cacttaattc agtgagtagg ccaaattggag gtcagctacg agtttctgct 360
 gttcttgagc tggactgaca gatgtttaca acgtctggcc atcagtwaat ggactgatta 420
 tcattgggaw gtgggtgggc tgaatgttgg ccagtgaagt ttattcawgc catattttta 480
 tgtttaggat gacttttggc tggtcctagg gcaagctctg tctgscacgg aacacagaat 540
 wacacaggga cccctcaat ttctggtgtg gctagaacca tgaaccactg gttgggggaa 600
 caagcgggtca aaacctaaagt gcggccggct ggcagggtcc acccatatgg ggaaaactcc 660
 cnacgcgttt ggaatgcctn agctngaatt attctaanaa ttgtccnont aaaattagcc 720
 tgggcgttaa tcangggctn naagcc 746

<210> 262
 <211> 588
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 485, 488, 489, 492, 493, 494, 496, 497, 498, 499, 502, 503,
 504, 506, 521, 537, 550, 564
 <223> n = A,T,C or G

<400> 262
 tgaccgcttg tcatctcaca tgggggtcctg cacgcttttg cctttgtagg aaacctgaca 60
 tttgtctgtt tcttctttct cttttccttc ccatatcctc ctaatttacg tttgacttgt 120
 ttgctgagga ggcaggagct agagactgct gtgagctcat aggggtggga agtttatcct 180
 tcaagtcccg cccactcctc actgcttctc accttccctt gaccaggctt acaagtgggt 240
 tcttgctctg tttccctttg gacccaacaa gcccctgtaa tgagtgtgca tgactctgac 300
 agctgtggac tcagggtcct tggctacagc tgccatgtaa aatatctcat ccagttctcg 360
 caaattgtta aaataaccac atttcttaga ttccagtacc caaatcatgt ctttacgaac 420
 tgctcctcac acccagaagt ggcacaataa ttcttgggga attattactt tttttttct 480
 ctctnttnc gnnngnnng gnnngnccag gaattaccac nttggaagac ctggccngaa 540
 tttattatan aggggagccg attntttttt ctaacacaaa gcgggtca 588

<210> 263
 <211> 730
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 124, 510, 534, 559, 604, 605, 635, 711, 729
 <223> n = A,T,C or G

<400> 263

<220>
 <221> misc_feature
 <222> 180
 <223> n = A,T,C or G

<400> 266
 taaactccgt ccccttctta atcaatatgg aggetaccca ctccacatta ctttcttttc 60
 aagggaactgt ttccgtaact gttgtgggta ttcaacgacca ggcttctaaa cctcttaaaa 120
 ctcccgaatt ctggtgccaa cttggacaac atgctttttt tttttttttt tttttttttt 180
 gagacggagt tta 193

<210> 267
 <211> 460
 <212> DNA
 <213> Homo sapiens

<400> 267
 tgttgcgatc ccttaagcat ggggtgctatt aaaaaaatgg tggagaagaa aatacctgga 60
 atttacgtct tatctttaga gattgggaag accctgatgg aggacgtgga gaacagcttc 120
 ttcttgaatg tcaattccca agtaacaaca gtgtgtcagg cacttgctaa ggatcctaaa 180
 ttgcagcaag gctacaatgc tatgggattc tcccagggag gccaatctct gagggcagtg 240
 gctcagagat gcccttcacc tcccatgatc aatctgatct cggttggggg acaacatcaa 300
 ggtgtttttg gactccctcg atgccagga gagagctctc acatctgtga cttcatccga 360
 aaaacactga atgctggggc gtactccaaa gttgttcagg aacgcctcgt gcaagccgaa 420
 tactggcatg acccataaaa ggaggatgtg gatcgcaaca 460

<210> 268
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 450, 470
 <223> n = A,T,C or G

<400> 268
 tgttgcgatc cgttgataga atagcgacgt ggtaatgagt gcatggcacg cctccgactt 60
 accttcgccc gtggggaccc cgagtagctc tacggcgctcgc tacccttagag taccctctgg 120
 acgcccgggc gcgttcgatt taccggaagc gcgagctgca gtgggcttgc gccccgggc 180
 aaattctttg ggggggtttaa ggccgcgggg aatttgaggt atctctatca gtatgtagcc 240
 aagttggaac agtcgccatt cccgaaatcg ctttctttga atccgcaccg cctccagcat 300
 tgcctcattc atcaacctga aggcacgcat aagtgcgggt tgtgtcttca gcagctccac 360
 tccataacta gcgcgctcga cctcgtcttc gtacgcgcca ggtccgtgcg tgcgaattcc 420
 caactccggg gagttgcgca tttcaagttn cgaaactgtt cgcctccacn atttggcatg 480
 ttcacgcatg acacggaata aactcgtcca gtaccgggaa tgggatcgca aca 533

<210> 269
 <211> 50
 <212> DNA
 <213> Homo sapiens

<400> 269
 tttttttttt ttgcgctgaa ttagctacag atcctcctca caagcgggtca 50

<210> 270
 <211> 519
 <212> DNA
 <213> Homo sapiens

<400> 270
 tgttgcgatc caaataaccc accagcttct tgcacacttc gcagaagcca ccgtcctttg 60
 gctgagtcac gtgaacggtc agtgcaagca gccgcgtgcc agagcagagg tgcagcatgc 120
 tgcacaccag ctcagggtg acctcctcca gcaggatgga caggatggag ctgccgtacg 180
 tgtccaccac ctcctggcac ttttccgaca gggacttcgg cagcttcgag cacattttgt 240
 caaaagcgtc gagtatcttct ttctcagtct tgttggtgtc aatcagcttg gtcacctcct 300
 tcaccaggaa ttcacacacc tcacagtaaa catcagactt tgctgggacc tcgtgcttct 360
 taatgggctc caccagtctc agggcagggg tgacattctt ggaggccact ttggcgggga 420
 ccagagtctg catgggcatc tctttcacct catcacagaa cccaaccago gcacagatct 480
 ccttgggttg catgtgcatc atcatctggg atcgcaaca 519

<210> 271
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 271
 tttttttttt ttcggggcgc gaccggacgt gcactcctcc agtagcggt gcacgtcgtg 60
 ccaatggccc gctatgagga ggtgagcgtg tccggcttcg aggagttcca ccgggccgtg 120
 gaacagcaca atggcaagac cattttcgcc tactttacgg gttctaagga cgcggggggg 180
 aaaagctggg gccccgactg cgtgcaggct gaaccagtcg tacgagaggg gctgaagcac 240
 attagtgaag gatgtgtgtt catctactgc caagtaggag aagagcctta ttggaaagat 300
 ccaaataatg acttcagaaa aaacttgaaa gtaacagcag tgcctacact acttaagtat 360
 ggaacacctc aaaaactggg agaatctgag tgtcttcagg ccaacctggt ggaaatgttg 420
 ttctctgaag attaagattt taggatggca atcaaga 457

<210> 272
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 272
 tttttttttt ttgggcaaca acctgaatac cttttcaagg ctctggcttg ggctcaagcc 60
 cgcaggggaa atgcaactgg ccaggtcaca gggcaatcaa ga 102

<210> 273
 <211> 455
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 380, 415, 454
 <223> n = A,T,C or G

<400> 273
 tttttttttt ttggcaatca acaggtttaa gtcttcggcc gaagttaatc tcgtgttttt 60
 ggcaatcaac aggtttaagt cttcggcoga agttaatctc gtgttttttg caatcaacag 120

```

gtttaagtct tcggccgaag ttaatctcgt gtttttggca atcaacaggt ttaagtcttc 180
ggccgaagtt aatctcgtgt ttttggcaat caacagggtt aagtcttcgg ccgaagttaa 240
tctcgtgttt ttggcaatca acagggtttaa gtcttcggcc gaagttaatc tcgtgttttt 300
ggcaatcaag aggtttaagt cttcggccga agttaatctc gtgtttttgg caatcaacag 360
gtttaagtct tcggccgaan ttaatctcgt gtttttggca atcaacaggt ttaantcttc 420
ggccgaagtt aatctcgtgt ttttggcaat caana 455

```

```

<210> 274
<211> 461
<212> DNA
<213> Homo sapiens

```

```

<400> 274
tttttttttt ttggccaata cccttgatga acatcaatgt gaaaatcctc ggtaaaatac 60
tggcaaacca aatccagcag cacatcaaaa agcttatcca ccatgatcaa gtgggcttca 120
tccctgggat gcaaggctgg ttcaacataa gaaaatcaat aaatgtaatc catcacataa 180
acagaaccaa agacaaaaac cacatgatta tctcaataga tgcagaaaag gccttggaca 240
aattcaacag cccttcatgc taaacactct taataaacta gatattgatg gaatgtatct 300
caaaataata agagctattt atgacaaacc cacagccaat atcatactga atgggcaaag 360
actggaagca ttccctttga aaactggcac aagacaagga tgccctctct caccgctcct 420
attcaacata gtattggaag ttctggccag ggcaatcaag a 461

```

```

<210> 275
<211> 729
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 164, 193, 207, 215, 216, 220, 223, 241, 244, 254, 269, 271,
275, 290, 295, 298, 309, 318, 325, 326, 331, 352, 380, 401,
411, 420, 424, 426, 431, 433, 435, 438, 440, 442, 443, 448,
453, 464, 465, 468, 474, 475, 481, 487, 491, 503, 516
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 519, 530, 531, 542, 547, 549, 559, 561, 564, 582, 586, 587,
588, 589, 592, 595, 612, 614, 620, 631, 632, 635, 636, 644,
646, 649, 650, 651, 655, 657, 660, 661, 662, 663, 666, 672,
673, 674, 682, 687, 691, 693, 697, 700, 701, 704, 705
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 713, 715, 717, 718, 722, 726, 727
<223> n = A,T,C or G

```

```

<400> 275
tttttttttt ttggccaaca ccaagtcttc cacgtgggag gttttattat gttttacaac 60
catgaaaaca taggaagggtg gctgttacag caaacatttc agatagacga atcggccaaag 120
ctcccaaac ccacacttca cagcctcttc cacacgtctc ccanagattg ttgtccttca 180
cttgcaaat canggatgtt ggaagtnac atttnnagtn gcnggaaccc catcagtga 240
ncantaagca gaantacgat gactttgana nacanctgat gaagaacacn ctacnganaa 300
ccctttctnt cgtgttanga tctcnngtcc ntcactaatg cggccccctg cnggtccacc 360
atttgggaga actcccccn cgttggatcc cccttgagt ntccattct ngtccccan 420

```

```

accngnettg ngngncantn cnnctcnca cntgtttcc ctgnngtnaa aatnngtttt 480
nccgcncccc naattccccc ccaaatcaca gcgaancncg aaggccttcn naagtgttta 540
angcccnngg gtttctctnt ntanttgag cctaccctcc cctttnnnnt tncngtttgg 600
tcgcgccttg gncncgctn gttcctcttt nnggnnaca cctngntcnn nggcnctcn 660
nnctnttcc tnnnactagc tngcctntcc ncnccngngn ncanngcaca ttncncnnac 720
tntgtnncc 729

```

```

<210> 276
<211> 339
<212> DNA
<213> Homo sapiens

```

```

<400> 276
tgacctgaca ttagtagat acttaataaa tatttgtgga atgaatggat gaagtggagt 60
tacagagaaa aatagaaaag tacaaattgt tgtcagtgtt ttgaaggaaa attatgatct 120
ttcccaaagt tctgacttca ttctaagaca gggtagtat ctccatacat aattttactt 180
gcttttgaag atcaaagag ataactctatt tagattgata atttatttag actggctata 240
aactattaag tgctagcaaa tatacatttt aatctcattt tccacctctt gtgatatagc 300
tatgtagggtg ttgactttaa tggatgtcag gtcaatccc 339

```

```

<210> 277
<211> 664
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 267, 534, 590, 601, 646, 657
<223> n = A,T,C or G

```

```

<400> 277
tgacctgaca tccataacaa aatctttctc cattatattc ttctagggga atttcttgaa 60
aagcatccaa aggaacacaa tgatggtaag accgtgccaa gtggggagca gacaccaaag 120
taagaccaca gattttacat tcaacaggta gctcacagta ctttgcccga cactgtgggc 180
agaaatagcc tctaagtga agcctggct cagtattgcc atccaaatgc gccatgctga 240
aagaggggtt tgcctcttg tcatatnaag aagcaatggg gtgctgagga aatcccatac 300
gaataagtga gcattcagaa cttgagctag caggaggagg actaagatga tgtgtgagca 360
actctttgta atggctttca tctaaaataa catggtacgt gccaccagtt tcacgagcaa 420
gtacagtga aacgcgaact tctgcagaca atccaataac agatactcta attttagctg 480
cctttagggt cttgattaaa tcataaatat tagatggatc gcaagttgta agnntgctaa 540
aagatgatta gtaactctcg acttgatgt ccaggcatgt tgttttaaan tctgccttag 600
nccctgctta ggggaatttt taaagaagat ggctctccat gttcanggtc aatcacnaat 660
tgcc 664

```

```

<210> 278
<211> 452
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 430
<223> n = A,T,C or G

```

<400> 278
 tgacctgaca ttgaggaaga gcacacacct ctgaaattcc ttaggttcag aagggcattt 60
 gacacagagt gggcctctga taattcatga aatgcattct gaagtcaccc agaattggagg 120
 ctgcaatctg ctgtgctttg ggggttgcc cactgtgctc ctggatatca cacaaaagct 180
 gcaatccttc ttcttcaact aacattttgc agtatttgct gggattttta ctgcagacat 240
 gatacatagc ccatagtgcc cagagctgaa cctctggttg agagaagttg ccaaggagcg 300
 ggaaaaatgt cttgaaagat ctatagggtca ccaatgctgt catcttaciaa cttgaacttg 360
 gccaatctctg tatggttgca tgcagatctt ggagaagagt acgcctctgg aagtcacggg 420
 atatccaaan ctgtctgtca gatgtcaggt ca 452

<210> 279

<211> 274

<212> DNA

<213> Homo sapiens

<400> 279
 tttttttttt ttcggaagg caaatttact tctgcaaaag ggtgctgctt gcacttttgg 60
 ccactgcgag agcacacca acaaagtagg gaaggggttt ttatccctaa cgcggttatt 120
 ccttggttct gtgtcgtgct cccattggct ggagtcagac tgcacaatct aactgaccc 180
 aactggctac tgtttaaaat tgaatatgaa taattaggta ggaaggggga ggctgtttgt 240
 tacggtaciaa gacgtgtttg ggcattgcag gtca 274

<210> 280

<211> 272

<212> DNA

<213> Homo sapiens

<400> 280
 tacctgacat ggagaaataa cttgtagtat tttgcgtgca atggaatact atatgagggt 60
 gaaaatgaat gaactagcaa tgcgtgtatc aacatgaata aatcccaaaa acataataat 120
 gttgaatgga aaaggtagt ttcagaagga tatatatgcc ctctaaatcc atttatgtaa 180
 acctttaaaa aactacatta tttatgggtca taagtccatc cagaaaatat ttaaaaacct 240
 acatgggatt gataactact gatgtcaggt ca 272

<210> 281

<211> 431

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 339, 420, 430, 431

<223> n = A,T,C or G

<400> 281
 tttttttttt ttggccaata gcatgattta aacattggaa aaagtcaa atgcaatgag 60
 aatttttatg ttctcttgaa taatcaaaa agtaggcaac attgggtcct cattcttgaa 120
 tagcattaat cagaaaatat tgcatagcct ctagcctcct tagagtaggt gtgctctctc 180
 aaatatatca tagtcccaca gtttatttca tgtatatatt ctgcctgaat cacatagaca 240
 tttgaatttg caacgcctga tgtaaatata taaattctta ccaatcagaa acatagcaag 300
 aaattcaggg acttggtcat yatcagggtg tgacagcana tccctgtara aacactgata 360
 cacactcaca cacgtatgca acgtggagat gtcgcyttww kkktywccwm rmrycrwcn 420
 aatcacttan n 431

<210> 290
 <211> 1646
 <212> DNA
 <213> Homo sapiens

<400> 290
 ggcacgagga gaaatgtaat tccatatttt atttgaaact tattccatat ttttaattgga 60
 tattgagtga ttgggttatac aaacacccac aaactttaat tttgttaaata ttatatggct 120
 ttgaaataga agtataagtt gctaccattt tttgataaca ttgaaagata gtatatttacc 180
 atctttaatc atcttggaat atacaagtcc tgtgaacaac cactctttca cctagcagca 240
 tgaggccaaa agtaaaggct ttaaattata acatatggga ttcttagtag tatgtttttt 300
 tcttgaaact cagtggctct atctaaccct actatctcct cactctttct ctaagactaa 360
 actctaggct cttaaaaatc tgcccacacc aatcttagaa gctctgaaaa gaatttgtct 420
 ttaaataatc ttttaatagta acatgtattt tatggaccaa attgacattt tgcactattt 480
 tttccaaaaa agtcaggtga atttcagcac actgagttgg gaattttctta tcccagaaga 540
 ccaaccaatt tcatatttat ttaagattga ttccatactc cgttttcaag gagaatccct 600
 gcagtctcct taaaggtaga acaataactt tctatttttt tttcaccatt gtgggattgg 660
 actttaagag gtgactctaa aaaaacagag aacaaatatg tctcagttgt attaagcacg 720
 gaccatatt atcatattca cttaaaaaaa tgatttcctg tgcacctttt ggcaacttct 780
 cttttcaatg tagggaaaaa cttagtcacc ctgaaaacc acaaaataaa taaaacttgt 840
 agatgtgggc agaaggtttg ggggtggaca ttgtatgtgt ttaaattaaa ccctgtatca 900
 ctgagaagct gttgtatggg tcagagaaaa tgaatgctta gaagctgttc acatcttcaa 960
 gagcagaagc aaaccacatg tctcagctat attattattt attttttatg cataaagtga 1020
 atcatattct ctgtattaat ttccaaaggg ttttacccctc tattttaaag ctttgaaaaa 1080
 cagtgcattg acaatgggtt gatatttttc tttaaaagaa aaatataatt atgaaagcca 1140
 agataatctg aagcctgttt tatttttaaaa ctttttatgt tctgtggttg atgttgtttg 1200
 tttgtttgtt tctattttgt tggtttttta cttgtttttt tgttttgttt tgttttgttt 1260
 kgcatactac atgcagttct ttaaccaatg tctgtttggc taatgtaatt aaagtgttta 1320
 atttataatg gtgcatttca actatgtcaa tggtttctta atatttattg tgtagaagta 1380
 ctggtaattt ttttatttac aatatgttta aagagataac agtttgatat gttttcatgt 1440
 gtttatagca gaagttattt atttctatgg cattccagcg gatatttttg tgtttgcgag 1500
 gcatgcagtc aatattttgt acagttatgt gacagtattc agcaacgcct gatagcttct 1560
 ttggccttat gttaaataaa aagacctgtt tgggatgtat tttttatttt taaaaaaaaa 1620
 aaaaaaaaaa aaaaaaaaaa aaaaaa 1646

<210> 291
 <211> 1851
 <212> DNA
 <213> Homo sapiens

<400> 291
 tcatcaccat tgccagcagc ggcaccgtta gtcaggtttt ctgggaatcc cacatgagta 60
 cttccgtgtt cttcattctt cttcaatagc cataaatctt ctagctctgg ctggctgttt 120
 tcaacttctt taagcctttg tgactcttcc tctgatgtca gctttaagtc ttgttctgga 180
 ttgctgtttt cagaagagat ttttaacatc tgtttttctt tgtagtcaga aagtaactgg 240
 caaattacat gatgatgact agaaacagca tactctctgg ccgtctttcc agatcttgag 300
 aagatacatc aacatttttg tcaagtagag ggctgactat acttgctgat ccacaacata 360
 cagcaagtat gagagcagtt cttccatata tatccagcgc attttaaattc gcttttttct 420
 tgattaaaaa tttcaccact tgctgttttt gctcatgtat accaagtagc agtggtgtga 480
 ggccatgctt gttttttgat tcgatatcag caccgtataa gagcagtgct ttggccatta 540
 atttatcttc attgtagaca gcatagtgtg gagggtgatt tccatactca tctggaatat 600
 ttggatcagt gccatgttcc agcaacatta acgcacattc atcttctctg cattgtacgg 660
 cctttgtcag agctgtcctc tttttgttgt caaggacatt aagttgacat cgtctgtcca 720
 gcacgagttt tactacttct gaattcccat tggcagaggg cagatgtaga gcagtcctct 780


```

cttttcccca tttagtatta tgttggtgtg gggcttgtca taggtgggtt ttattacttt 1800
aaggatgtgc ccttctatgc ctgttttgct gaggggttta attctcgtgc c 1851

```

```

<210> 293
<211> 668
<212> DNA
<213> Homo sapiens

```

```

<400> 293
cttgagcttc caaataygga agactggccc ttacacasgt caatgttaaa atgaatgcat 60
ttcagtatatt tgaagataaa attrgtagat ctataccttg ttttttgatt cgatatcagc 120
accrtataag agcagtgcct tggccattaa tttatctttc attrtagaca gcrtagtggya 180
gagtgggtatt tccatactca tctggaatat ttggatcagt gccatgttcc agcaacatta 240
acgcacattc atcttctctg cattgtacgg cctgtcagta ttagacccaa aaacaaatta 300
catatcttag gaattcaaaa taacattcca cagctttcac caactagtta tatttaaagg 360
agaaaactca tttttatgcc atgtattgaa atcaaaccce cctcatgctg ataatgttgg 420
ctactgcata cctttatcag agctgtcctc tttttgttgt caaggacatt aagtgtgacat 480
cgtctgtcca gcaggagttt tactacttct gaattcccat tggcagaggc cagatgtaga 540
gcagtcctat gagagtgaga agacttttta ggaaattgta gtgcactagc tacagccata 600
gcaatgattc atgtaactgc aaacactgaa tagcctgcta ttactctgcc ttcaaaaaaa 660
aaaaaaa 668

```

```

<210> 294
<211> 1512
<212> DNA
<213> Homo sapiens

```

```

<400> 294
gggtcgccca ggggsgcgt gggctttcct cgggtgggtg tgggttttcc ctgggtgggg 60
tgggctgggc trgaatcccc tgctggggtt ggcaggtttt ggctgggatt gacttttytc 120
ttcaaacaga ttggaacccc ggagttacct gctagtttgt gaaactgggt ggtagacgcg 180
atctgtttgc tactactggc ttctcctggc tgttaaaagc agatgggtgt tgaggttgat 240
tccatgccgg ctgcttcttc tgtgaagaag ccatttggtc tcaggagcaa gatgggcaag 300
tgggtgctgcc gttgcttccc ctgctgcagg gagagcggca agagcaacgt gggcacttct 360
ggagaccacg acgactctgc tatgaagaca ctgaggagca agatgggcaa gtggtgccgc 420
cactgcttcc cctgctgcag ggggagtggt aagagcaacg tgggcgcttc tggagaccac 480
gacgaytctg ctatgaagac actcaggaac aagatgggca agtgggtgct cactgcttc 540
ccctgctgca gggggagcrg caagagcaag gtgggcgctt ggggagacta cgatgacagt 600
gccttcatgg agcccaggta ccacgtccgt ggagaagatc tggacaagct ccacagagct 660
gcctggtggg gtaaaagtcce cagaaaggat ctcatcgtca tgctcaggga cactgacgtg 720
aacaagaagg acaagcaaaa gaggactgct ctacatctgg cctctgccaa tgggaattca 780
gaagtagtaa aactcstgct ggacagacga tgtcaactta atgtccttga caacaaaaag 840
aggacagctc tgaayaaaggc cgtacaatgc caggaagatg aatgtgcgtt aatgttgctg 900
gaacatggca ctgatccaaa tattccagat gagtatggaa ataccactct ractaygct 960
rtctayaatg aagataaatt aatggccaaa gcaactgctt tatayggtgc tgatatcgaa 1020
tcaaaaaaca aggtatagat ctactaattt tatcttcaaa atactgaaat gcattcattt 1080
taacattgac gtgtgtaagg gccagtcttc cgtatttgga agctcaagca taacttgaat 1140
gaaaatattt tgaatgacc taattatctm agactttatt ttaaattatt ttattttcaa 1200
agaagcatta gaggttacag tttttttttt ttaaattgcac ttctggtaaa tacttttgtt 1260
gaaaacactg aatttgtaaa aggtataact tactattttt caatttttcc ctctaggat 1320
ttttttcccc taatgaatgt aagatggcaa aatttgccct gaaatagggt ttacatgaaa 1380
actccaagaa aagttaaaca tgtttcagtg aatagagatc ctgctccttt ggcaagttcc 1440
taaaaaacag taatagatac gaggtgatgc gcctgtcagt ggcaagggtt aagatatttc 1500
tgatctcgtg cc 1512

```

<210> 295
 <211> 1853
 <212> DNA
 <213> Homo sapiens

<400> 295
 ggggtcgccca gggggsgcgt gggctttcct cgggtgggtg tgggttttcc ctgggtgggg 60
 tgggctgggc trgaatcccc tgctgggggtt ggcaggtttt ggctgggatt gacttttytc 120
 ttcaaacaga ttggaacccc ggagttacct gctagttggt gaaactgggt ggtagacgcg 180
 atctgttggc tactactggc ttctcctggc tgttaaaagc agatgggtgt tgaggttgat 240
 tccatgccgg ctgcttcttc tgtgaagaag ccatttggtc tcaggagcaa gatgggcaag 300
 tgggtgctgcc gttgcttccc ctgctgcagg gagagcggca agagcaacgt gggcacttct 360
 ggagaaccag acgactctgc tatgaagaca ctgaggagca agatgggcaa gtggtgccgc 420
 cactgcttcc cctgctgcag ggggagtggc aagagcaacg tgggcgcttc tggagaccac 480
 gacgaytctg ctatgaagac actcaggaac aagatgggca agtgggtgctg cactgcttc 540
 ccctgctgca gggggagcrg caagagcaag gtgggcgctt ggggagacta cgatgacagy 600
 gccttcatgg akccaggtta ccacgtccrt ggagaagatc tggacaagct ccacagagct 660
 gcctgggtggg gtaaagtccc cagaaaggat ctcatcgtca tgctcaggga cackgaygtg 720
 aacaagargg acaagcaaaa gaggactgct ctacatctgg cctctgccaa tgggaattca 780
 gaagtagtaa aactcstgct ggacagacga tgtcaactta atgtccttga caacaaaaag 840
 aggacagctc tgayaaaggc cgtacaatgc caggaagatg aatgtgcgtt aatgttgctg 900
 gaacatggca ctgatccaaa tattccagat gagtatggaa ataccactct rcactaygct 960
 rtctayaatg aagataaatt aatggccaaa gcactgctct tataygggtc tgatatcgaa 1020
 tcaaaaaaca agcatggcct cacaccactg ytacttggtt tacatgagca aaaacagcaa 1080
 gtsgtgaaat ttttaatyaa gaaaaaagcg aatttaaaat gcrctggata gatatggaag 1140
 ractgctctc atacttgctg tatgttgtgg atcagcaagt atagtcagcc ytctacttga 1200
 gcaaaaatrtt gatgtatctt ctcaagatct ggaaagacgg ccagagagta tgctgtttct 1260
 agtcatcatc atgtaatttg ccagttactt tctgactaca aagaaaaaca gatgttaaaa 1320
 atctcttctg aaaacagcaa tccagaacaa gacttaaaagc tgacatcaga ggaagagtca 1380
 caaaggctta aaggaagtga aaacagccag ccagaggcat ggaaactttt aaatttaaac 1440
 ttttggttta atgttttttt tttttgcctt aataatatta gatagtccca aatgaaatwa 1500
 cctatgagac taggctttga gaatcaatag attctttttt taagaatctt ttggctagga 1560
 gcggtgtctc acgctgttaa ttccagcacc ttgagaggct gaggtgggca gatcacgaga 1620
 tcaggagatc gagaccatcc tggctaacac ggtgaaaccc catctctact aaaaatacaa 1680
 aaacttagct ggggtgtggtg gcgggtgcct gtagtccag ctactcagga rgctgaggca 1740
 ggagaatggc atgaaccggg gaggtggagg ttgcagttag ccgagatccg ccactacact 1800
 ccagcctggg tgacagagca agactctgtc tcaaaaaaaa aaaaaaaaaa aaa 1853

<210> 296
 <211> 2184
 <212> DNA
 <213> Homo sapiens

<400> 296
 ggcacgagaa ttaaaaccct cagcaaaaaca ggcatagaag ggacatacct taaagtaata 60
 aaaaccacct atgacaagcc cacagccaac ataatactaa atggggaaaa gttagaagca 120
 tttcctctga gaactgcaac aataaatata aggatgctgg attttgtcaa atgccttttc 180
 tgtgtctgtt gagatgctta tgtgactttg cttttaattc tgtttatgtg attatcacat 240
 ttattgactt gctgtgttta gaccggaaga gctgggggtg ttctcaggag ccaccgtgtg 300
 ctgoggcagc ttogggataa cttgaggctg catcactggg gaagaaacac aytccgtgtc 360
 gtggcgctga tggctgagga cagagcttca gtgtggcttc tctgcgactg gcttcttcgg 420
 ggagttcttc cttcatagtt catccatatg gctccagagg aaaattatat tattttgtta 480
 tggatgaaga gtattacgtt gtgcagatat actgcagtgt cttcatctct tgatgtgtga 540

```

ttgggtaggt tccacatgt tgccgcagat gacatgattt cagtacctgt gtctggetga 600
aaagtgtttg tttgtgaatg gatattgtgg tttctggatc tcatcctctg tgggtggaca 660
gctttctcca ccttgctgga agtgacctgc tgtccagaag tttgatggct gaggagtata 720
ccatcgtgca tgcattcttc atttcctgca tttcttcctc cctggatgga cagggggagc 780
ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa gacgcttggg 840
agcaagaggt gcaagtgggt ctgccactgc ttccctgctg gcagggggagc ggcaagagca 900
acgtggctgc ttggggagac tacgatgaca gcgccttcat ggatcccagg taccacgtcc 960
atggagaaga tctggacaag ctccacagag ctgcctgggt gggtaaagtc cccagaaagg 1020
atctcatcgt catgctcagg gacacggatg tgaacaagag ggacaagcaa aagaggactg 1080
ctctacatct ggctctgccc aatgggaatt cagaagtagt aaaactcgtg ctggacagac 1140
gatgtcaact taatgtcctt gacaacaaaa agaggacagc tctgacaaaag gccgtacaat 1200
gccaggaaga tgaatgtgcg ttaatgttgc tggaacatgg cactgatcca aatattccag 1260
atgagtattg aaataccact ctacactatg ctgtctacaa tgaagataaa ttaatggcca 1320
aagcactgct cttatacggg gctgatatcg aatcaaaaaa caagcatggc ctcacaccac 1380
tgctacttgg tatacatgag caaaaacagc aagtgggtgaa atttttaatc aagaaaaaac 1440
cgaattttaa tgcgctggat agatatggaa gaactgctct catacttgct gtatgttggt 1500
gatcagcaag tatagtcagc cctctacttg agcaaaatgt tgatgtatct tctcaagatc 1560
tggaagagcg gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact 1620
ttctgactac aaagaaaaaac agatgtttaa aatctcttct gaaaacagca atccagaaca 1680
agacttaaag ctgacatcag aggaagagtc acaaaggctt aaagggaagtg aaaacagcca 1740
gccagaggca tggaaacttt taaattttaa cttttgggtt aatgtttttt ttttttgctt 1800
taataatatt agatagtcct aaatgaaatw acctatgaga ctaggctttg agaatcaata 1860
gattcttttt ttaagaatct tttggctagg agcgggtgct cagcctgta attccagcac 1920
cttgagaggg tgaggtgggc agatcacgag atcaggagat cgagaccatc ctggctaaca 1980
cgggtgaaacc ccatctctac taaaaataca aaaacttagc tgggtgtggg gccgggtgcc 2040
tgtagtccca gctactcagg argctgaggc aggagaatgg catgaaccgg ggaggtggag 2100
gttgacagtga gccgagatcc gccactacac tccagcctgg gtgacagagc aagactctgt 2160
ctcaaaaaaa aaaaaaaaaa aaaa

```

```

<210> 297
<211> 1855
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 606
<223> n = A,T,C or G

```

```

<400> 297
tgcaacgcatc ggccagtgtc tgtgccacgt aactgacgc cccctgagat gtgcacgccg 60
cacgcgcacg ttgcacgcgc ggcagcggct tggctggctt gtaacggctt gcacgcgcac 120
gccgcccccg cataacgcgc agactggcct gtaacggctt gcaggcgcac gccgcacgcg 180
cgtaacggct tggctgccct gtaacggctt gcacgtgcat gctgcacgcg cgtaacggc 240
ttggctggca tgtagcgcgt tggcttggct ttgcatttct tgctkggctk gccgttgkty 300
tcttggaattg acgcttcctc cttggatkgc cgtttcctcc ttggatkgac gtttcytyty 360
tcgcgttcct ttgctggact tgacctttty tctgctgggt ttggcattcc tttgggttgg 420
gctgggtgtt ttctccgggg gggktkgccc ttcttgggtt gggcgtgggk cccccccagg 480
gggcgtgggc tttcccgagg tgggtgtggg ttttcttggg gtgggttggg ctgtgctggg 540
atccccctgc tggggttggc agggattgac tttttcttcc aaacagattg gaaacccgga 600
gtaacntgct agttgggtgaa actgggttgg agacgcgac tgcgtgtact actgtttctc 660
ctggctgtta aaagcagatg gtggctgagg ttgattcaat gccggctgct tcttctgtga 720
agaagccatt tgggtctcagg agcaagatgg gcaagtgggt cgccactgct tccctgctg 780
caggggggagc ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa 840

```



```

      35              40              45
Leu Asp Gly Gln Gly Glu Arg Gln Glu Gln Arg Gly His Phe Trp Arg
  50              55              60
Pro Gln Arg Leu Leu Cys Glu Asp Ala Trp Glu Gln Glu Val Gln Val
  65              70              75              80
Val Leu Pro Leu Leu Pro Leu Leu Gln Gly Ser Gly Lys Ser Asn Val
      85              90              95
Val Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr
      100              105              110
His Val His Gly Glu Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp
      115              120              125
Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp
      130              135              140
Val Asn Lys Arg Asp Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser
  145              150              155              160
Ala Asn Gly Asn Ser Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys
      165              170              175
Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala
      180              185              190
Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly
      195              200              205
Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr
      210              215              220
Ala Val Tyr Asn Glu Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr
  225              230              235              240
Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu
      245              250              255
Leu Gly Ile His Glu Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys
      260              265              270
Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu
      275              280              285
Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu
      290              295              300
Glu Gln Asn Val Asp Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu
  305              310              315              320
Ser Met Leu Phe Leu Val Ile Ile Met
      325

```

```

<210> 300
<211> 148
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> VARIANT
<222> 3, 46, 69, 88, 124
<223> Xaa = Any Amino Acid

```

```

<400> 300
Met Thr Xaa Pro Ser Trp Ser Pro Gly Thr Thr Ser Val Glu Lys Ile
  1              5              10              15
Trp Thr Ser Ser Thr Glu Leu Pro Trp Trp Gly Lys Val Pro Arg Lys
      20              25              30

```

Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Xaa Asp Lys
 35 40 45
 Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu
 50 55 60
 Val Val Lys Leu Xaa Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp
 65 70 75 80
 Asn Lys Lys Arg Thr Ala Leu Xaa Lys Ala Val Gln Cys Gln Glu Asp
 85 90 95
 Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro
 100 105 110
 Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Xaa Tyr Asn Glu Asp
 115 120 125
 Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser
 130 135 140
 Lys Asn Lys Val
 145

<210> 301
 <211> 1155
 <212> DNA
 <213> Homo sapiens

<400> 301
 atggttggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc 60
 aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag 120
 agcaacgtgg gcacttcttg agaccacgac gactctgcta tgaagacact caggagcaag 180
 atgggcaagt ggtgccgcca ctgcttcccc tgctgcaggg ggagtggcaa gagcaacgtg 240
 ggcgcttctg gagaccacga cgactctgct atgaagacac tcaggaacaa gatgggcaag 300
 tgggtgctgc actgcttccc ctgctgcagg gggagcggca agagcaaggt gggcgcttgg 360
 ggagactacg atgacagtgc cttcatggag cccagggtacc acgtccgtgg agaagatctg 420
 gacaagctcc acagagctgc ctggtggggg aaagtcccca gaaaggatct catcgatcatg 480
 ctccagggaca ctgacgtgaa caagaaggac aagcaaaaga ggactgctct acatctggcc 540
 tctgccaatg ggaattcaga agtagtaaaa ctctgctgag acagacgatg tcaacttaat 600
 gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa 660
 tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat 720
 accactctgc actacgctat ctataatgaa gataaattaa tggccaaagc actgctctta 780
 tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttgggtgta 840
 catgagcaaa aacagcaagt cgtgaaattt ttaatcaaga aaaaagcgaa tttaaatgca 900
 ctggatagat atggaaggac tgctctcata cttgctgtat gttgtggatc agcaagtata 960
 gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg 1020
 gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact ttctgactac 1080
 aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
 accagaaata aataa 1155

<210> 302
 <211> 2000
 <212> DNA
 <213> Homo sapiens

<400> 302
 atggttggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc 60
 aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag 120
 agcaacgtgg gcacttcttg agaccacgac gactctgcta tgaagacact caggagcaag 180

Ala	Leu	Ile	Lys	Ala	Val	Gln	Cys	Gln	Glu	Asp	Glu	Cys	Ala	Leu	Met
210						215					220				
Leu	Leu	Glu	His	Gly	Thr	Asp	Pro	Asn	Ile	Pro	Asp	Glu	Tyr	Gly	Asn
225					230					235					240
Thr	Thr	Leu	His	Tyr	Ala	Ile	Tyr	Asn	Glu	Asp	Lys	Leu	Met	Ala	Lys
			245						250					255	
Ala	Leu	Leu	Leu	Tyr	Gly	Ala	Asp	Ile	Glu	Ser	Lys	Asn	Lys	His	Gly
		260						265					270		
Leu	Thr	Pro	Leu	Leu	Leu	Gly	Val	His	Glu	Gln	Lys	Gln	Gln	Val	Val
	275						280					285			
Lys	Phe	Leu	Ile	Lys	Lys	Lys	Ala	Asn	Leu	Asn	Ala	Leu	Asp	Arg	Tyr
290						295					300				
Gly	Arg	Thr	Ala	Leu	Ile	Leu	Ala	Val	Cys	Cys	Gly	Ser	Ala	Ser	Ile
305					310					315					320
Val	Ser	Leu	Leu	Leu	Glu	Gln	Asn	Ile	Asp	Val	Ser	Ser	Gln	Asp	Leu
			325						330					335	
Ser	Gly	Gln	Thr	Ala	Arg	Glu	Tyr	Ala	Val	Ser	Ser	His	His	His	Val
			340					345					350		
Ile	Cys	Gln	Leu	Leu	Ser	Asp	Tyr	Lys	Glu	Lys	Gln	Met	Leu	Lys	Ile
	355					360						365			
Ser	Ser	Glu	Asn	Ser	Asn	Pro	Glu	Gln	Asp	Leu	Lys	Leu	Thr	Ser	Glu
370					375						380				
Glu	Glu	Ser	Gln	Arg	Phe	Lys	Gly	Ser	Glu	Asn	Ser	Gln	Pro	Glu	Lys
385					390					395					400
Met	Ser	Gln	Glu	Pro	Glu	Ile	Asn	Lys	Asp	Gly	Asp	Arg	Glu	Val	Glu
			405						410					415	
Glu	Glu	Met	Lys	Lys	His	Glu	Ser	Asn	Asn	Val	Gly	Leu	Leu	Glu	Asn
		420						425				430			
Leu	Thr	Asn	Gly	Val	Thr	Ala	Gly	Asn	Gly	Asp	Asn	Gly	Leu	Ile	Pro
	435						440					445			
Gln	Arg	Lys	Ser	Arg	Thr	Pro	Glu	Asn	Gln	Gln	Phe	Pro	Asp	Asn	Glu
	450					455					460				
Ser	Glu	Glu	Tyr	His	Arg	Ile	Cys	Glu	Leu	Val	Ser	Asp	Tyr	Lys	Glu
465					470					475					480
Lys	Gln	Met	Pro	Lys	Tyr	Ser	Ser	Glu	Asn	Ser	Asn	Pro	Glu	Gln	Asp
			485					490						495	
Leu	Lys	Leu	Thr	Ser	Glu	Glu	Glu	Ser	Gln	Arg	Leu	Glu	Gly	Ser	Glu
		500						505					510		
Asn	Gly	Gln	Pro	Glu	Leu	Glu	Asn	Phe	Met	Ala	Ile	Glu	Glu	Met	Lys
	515						520					525			
Lys	His	Gly	Ser	Thr	His	Val	Gly	Phe	Pro	Glu	Asn	Leu	Thr	Asn	Gly
530						535					540				
Ala	Thr	Ala	Gly	Asn	Gly	Asp	Asp	Gly	Leu	Ile	Pro	Pro	Arg	Lys	Ser
545					550					555					560
Arg	Thr	Pro	Glu	Ser	Gln	Gln	Phe	Pro	Asp	Thr	Glu	Asn	Glu	Glu	Tyr
			565						570					575	
His	Ser	Asp	Glu	Gln	Asn	Asp	Thr	Gln	Lys	Gln	Phe	Cys	Glu	Glu	Gln
		580					585					590			
Asn	Thr	Gly	Ile	Leu	His	Asp	Glu	Ile	Leu	Ile	His	Glu	Glu	Lys	Gln
	595					600						605			
Ile	Glu	Val	Val	Glu	Lys	Met	Asn	Ser	Glu	Leu	Ser	Leu	Ser	Cys	Lys
610						615					620				
Lys	Glu	Lys	Asp	Ile	Leu	His	Glu	Asn	Ser	Thr	Leu	Arg	Glu	Glu	Ile
625					630					635					640

Ala Met Leu Arg Leu Glu Leu Asp Thr Met Lys His Gln Ser Gln Leu
 645 650 655

<210> 306
 <211> 671
 <212> PRT
 <213> Homo sapiens

<400> 306
 Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys
 1 5 10 15
 Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe
 20 25 30
 Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
 35 40 45
 His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
 50 55 60
 Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val
 65 70 75 80
 Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn
 85 90 95
 Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser
 100 105 110
 Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe
 115 120 125
 Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His
 130 135 140
 Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met
 145 150 155 160
 Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala
 165 170 175
 Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu
 180 185 190
 Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr
 195 200 205
 Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met
 210 215 220
 Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn
 225 230 235 240
 Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
 245 250 255
 Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
 260 265 270
 Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
 275 280 285
 Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
 290 295 300
 Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
 305 310 315 320
 Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
 325 330 335
 Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
 340 345 350

00524400:000704

Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
 355 360 365
 Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu
 370 375 380
 Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser Gln Pro Glu Lys
 385 390 395 400
 Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Val Glu
 405 410 415
 Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly Leu Leu Glu Asn
 420 425 430
 Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn Gly Leu Ile Pro
 435 440 445
 Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe Pro Asp Asn Glu
 450 455 460
 Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser Asp Tyr Lys Glu
 465 470 475 480
 Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp
 485 490 495
 Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Leu Glu Gly Ser Glu
 500 505 510
 Asn Gly Gln Pro Glu Lys Arg Ser Gln Glu Pro Glu Ile Asn Lys Asp
 515 520 525
 Gly Asp Arg Glu Leu Glu Asn Phe Met Ala Ile Glu Glu Met Lys Lys
 530 535 540
 His Gly Ser Thr His Val Gly Phe Pro Glu Asn Leu Thr Asn Gly Ala
 545 550 555 560
 Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro Pro Arg Lys Ser Arg
 565 570 575
 Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu Asn Glu Glu Tyr His
 580 585 590
 Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe Cys Glu Glu Gln Asn
 595 600 605
 Thr Gly Ile Leu His Asp Glu Ile Leu Ile His Glu Glu Lys Gln Ile
 610 615 620
 Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser Leu Ser Cys Lys Lys
 625 630 635 640
 Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu Arg Glu Glu Ile Ala
 645 650 655
 Met Leu Arg Leu Glu Leu Asp Thr Met Lys His Gln Ser Gln Leu
 660 665 670

<210> 307
 <211> 800
 <212> DNA
 <213> Homo sapiens

<400> 307
 atkagcttcc gcttctgaca acactagaga tccctcccct ccctcagggt atggccctcc 60
 acttcatatt tggtacataa catctttata ggacaggggt aaaatcccaa tactaacagg 120
 agaatgctta ggactctaac aggtttttga gaatgtgttg gtaagggccca ctcaatccaa 180
 tttttcttgg tccctccttg ggtctaggag gacaggcaag ggtgcagatt ttcaagaatg 240
 catcagtaag ggccactaaa tccgaccttc ctcgttcctc cttgtggtct gggaggaaaa 300
 ctagtgtttc tggtgctgtg tcagttagca caactattcc gatcagcagg gtccaggggac 360

```

cactgcaggt tcttgggcag ggggagaaac aaaacaaacc aaaacccatgg gorgttttgt 420
ctttcagatg ggaaacactc aggcatacaac aggctcacct ttgaaatgca tcctaagcca 480
atgggacaaa tttgacccac aaaccctgga aaaagagggtg gctcattttt tttgcactat 540
ggcttggccc caacattctc tctctgatgg ggaaaaatgg ccacctgagg gaagtacaga 600
ttacaatact atcctgcagc ttgacctttt ctgtaagagg gaaggcaaat ggagtgaaat 660
acottatgtc caagctttct tttcattgaa ggagaataca ctatgcaaag cttgaaattt 720
acatcccaca ggaggacctc tcagcttacc cccatatacct agcctcccta tagctccctt 780
tcctattagt gataagcctc                                     800

```

<210> 308

<211> 102

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 3

<223> Xaa = Any Amino Acid

<400> 308

```

Met Gly Xaa Phe Val Phe Gln Met Gly Asn Thr Gln Ala Ser Thr Gly
 1              5              10              15
Ser Pro Leu Lys Cys Ile Leu Ser Gln Trp Asp Lys Phe Asp Pro Gln
      20              25              30
Thr Leu Glu Lys Glu Val Ala His Phe Phe Cys Thr Met Ala Trp Pro
      35              40              45
Gln His Ser Leu Ser Asp Gly Glu Lys Trp Pro Pro Glu Gly Ser Thr
      50              55              60
Asp Tyr Asn Thr Ile Leu Gln Leu Asp Leu Phe Cys Lys Arg Glu Gly
65              70              75              80
Lys Trp Ser Glu Ile Pro Tyr Val Gln Ala Phe Phe Ser Leu Lys Glu
      85              90              95
Asn Thr Leu Cys Lys Ala
      100

```

<210> 309

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in the lab

<400> 309

```

Leu Met Ala Glu Glu Tyr Thr Ile Val
 1              5

```

<210> 310

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in the lab

<400> 310

Lys Leu Met Ala Lys Ala Leu Leu Leu
1 5

<210> 311

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in the lab

<400> 311

Gly Leu Thr Pro Leu Leu Leu Gly Ile
1 5

<210> 312

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in the lab

<400> 312

Lys Leu Val Leu Asp Arg Arg Cys Gln Leu
1 5 10

<210> 313

<211> 1852

<212> DNA

<213> Homo sapiens

<400> 313

```

ggcacgagaa ttaaaaccct cagcaaaaaca ggcatagaag ggacatacct taaagtaata 60
aaaaccacct atgacaagcc cacagccaac ataatactaa atggggaaaa gttagaagca 120
tttcctctga gaactgcaac aataaatata aggatgctgg attttgtcaa atgccttttc 180
tgtgtctgtt gagatgctta tgtgactttg cttttaattc tgtttatgtg attatcacat 240
ttattgactt gctgtgttta gaccggaaga gctgggggtg ttctcaggag ccaccgtgtg 300
ctgcggcagc ttcgggataa cttgaggctg catcactggg gaagaaacac aytccgtgcc 360
gtggcgctga tggctgagga cagagcttca gtgtggcttc tctgcgactg gcttcttcgg 420
ggagtctctc cttcatagtt catccatatg gctccagagg aaaattatat tattttgtta 480
tggatgaaga gtattacgtt gtgcagatat actgcagtgt cttcatctct tgatgtgtga 540
ttgggtaggt tccaccatgt tgccgcagat gacatgattt cagtacctgt gtctggctga 600
aaagtgtttg tttgtgaatg gatattgtgg tttctggatc tcatcctctg tgggtggaca 660
gctttctcca ccttgctgga agtgacctgc tgtccagaag tttgatggct gaggagtata 720
ccatcgtgca tgcattcttc atttcctgca tttcttcctc cctggatgga cagggggagc 780
ggcaagagca acgtgggcac ttctggagac cacaacgact cctctgtgaa gacgcttggg 840

```

```

agcaagaggt gcaagtgggt ctgccactgc ttccccctgct gcagggggag cggcaagagc 900
aacgtgggtcg cttgggggaga ctacgatgac agcgccttca tggatcccag gtaccacgtc 960
catggagaag atctggacaa gctccacaga gctgcctggt ggggtaaaagt ccccagaaaag 1020
gatctcatcg tcatgctcag ggacacggat gtgaacaaga gggacaagca aaagaggact 1080
gctctacatc tggcctctgc caatgggaat tcagaagtag taaaactcgt gctggacaga 1140
cgatgtcaac ttaatgtcct tgacaacaaa aagaggacag ctctgacaaa ggccgtacaa 1200
tgccaggaag atgaatgtgc gttaatgttg ctggaacatg gcactgatcc aaatattcca 1260
gatgagtatg gaaataccac tctacactat gctgtctaca atgaagataa attaatggcc 1320
aaagcactgc tcttatacgg tgctgatatc gaatcaaaaa acaagcatgg cctcacacca 1380
ctgctacttg gtatacatga gcaaaaacag caagtgggtga aatttttaat caagaaaaaa 1440
gcgaatttaa atgcgctgga tagatatgga agaactgctc tcatacttgc tgtatgttgt 1500
ggatcagcaa gtatagtcag ccctctactt gagcaaaatg ttgatgtatc ttctcaagat 1560
ctggaaagac ggccagagag tatgctgttt ctagtcatca tcatgtaatt tgccagtta 1620
tttctgacta caaagaaaaa cagatgttaa aaatctcttc tgaaaacagc aatccagaac 1680
aagacttaaa gctgacatca gaggaagagt cacaaaggct taaaggaagt gaaaacagcc 1740
agccagagct agaagattta tggctattga agaagaatga agaacacgga agtactcatg 1800
tgggattccc agaaaacctg actaacggtg ccgctgctgg caatggtgat ga 1852

```

```

<210> 314
<211> 879
<212> DNA
<213> Homo sapiens

```

```

<400> 314
atgcattctt catttctctgc atttcttctt ccctggatgg acagggggag cggcaagagc 60
aacgtgggca cttctggaga ccacaacgac tcctctgtga agacgcttgg gagcaagagg 120
tgcaagtggg gctgccactg cttccccctgc tgcaggggga gcggcaagag caacgtggtc 180
gcttggggag actacgatga cagcgccttc atggatccca ggtaccacgt ccatggagaa 240
gatctggaca agctccacag agctgcctgg tggggtaaag tccccagaaa ggatctcatc 300
gtcatgctca gggacacgga tgtgaacaag agggacaagc aaaagaggac tgctctacat 360
ctggcctctg ccaatgggaa ttcagaagta gtaaaactcg tgctggacag acgatgtcaa 420
cttaatgtcc ttgacaacaa aaagaggaca gctctgacaa aggccgtaca atgccaggaa 480
gatgaatgtg cgttaatgtt gctggaacat ggcactgatc caaatattcc agatgagtat 540
ggaaatacca ctctacacta tgctgtctac aatgaagata aattaatggc caaagcactg 600
ctcttatacg gtgctgatat cgaatcaaaa aacaagcatg gcctcacacc actgctactt 660
ggtatacatg agcaaaaaca gcaagtgggt aaatttttaa tcaagaaaaa agcgaattta 720
aatgcgctgg atagatatgg aagaactgct ctcatacttg ctgtatgttg tggatcagca 780
agtatagtea gccctctact tgagcaaaat gttgatgtat cttctcaaga tctggaaaga 840
cggccagaga gtatgctgtt tctagtcatc atcatgtaa 879

```

```

<210> 315
<211> 292
<212> PRT
<213> Homo sapiens

```

```

<400> 315
Met His Leu Ser Phe Pro Ala Phe Leu Pro Pro Trp Met Asp Arg Gly
          5                      10                      15

Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp His Asn Asp Ser Ser
          20                      25                      30

Val Lys Thr Leu Gly Ser Lys Arg Cys Lys Trp Cys Cys His Cys Phe

```


<400> 316
 agttgggcca aattcccctc cccctacagc ttgaagggga cataaccaat agcctgggggt 60
 ttttttgtgg tccttttgag atttctttgc ttattttctt ctgggtgggg gtgattagag 120
 gaggttatac actaatagga aggggagcta tagggaggct aggatatggg ggtaagctga 180
 gaggtcctcc tgtgggatgt aaatttcaag ctttgcatag tgtattctcc ttcaatgaaa 240
 agaaagcttg gacataaggt atttcaactc atttgccctc cctcttacag aaaagggtcaa 300
 gctgcaggat agtattgtaa tctgtacttc cctcagggtg ccatttttcc ccatcagaga 360
 gagaatgttg gggccaagcc atagtgcaga aaaaaaatg agccacctct ttttccaggg 420
 tttgtgggtc aaatttgtcc cattggctta ggatgcattt caaagggtgag cctgttgatg 480
 cctgagtgtt tcccatctga aagacaaaac tgcccattgt tttggtttgt tttgtttctc 540
 ccctgcccc agaactatca aactcctgag ccaacaacta aaaa 584

<210> 317
 <211> 829
 <212> DNA
 <213> Homo sapiens

<400> 317
 attagcttcc gcttctgaca acactagaga tccctcccct ccctcagggt atggccctcc 60
 acttcatttt tggtagataa catctttata ggacaggggt aaaatcccaa tactaacagg 120
 agaatgctta ggactctaac aggtttttga gaatgtgttg gtaagggcca ctcaatccaa 180
 tttttcttgg tcttccttgt ggtctaggag gacaggcaag ggtgcagatt ttcaagaatg 240
 catcagtaag ggccactaaa tccgaccttc ctctgttctc cttgtggtct gggaggaaaa 300
 ctagtgtttc tgttgctgtg tcagttagca caactattcc gatcagcagg gtccagggac 360
 cactgcagggt tcttgggcag ggggagaaac aaaacaaacc aaaaccatgg gcagttttgt 420
 ctttcagatg ggaaacactc aggcataaac aggtcacct ttgaaatgca tccaaagcca 480
 atgggacaaa tttgacctc aaacctgga aaaagagggt gctcattttt tttgcactat 540
 ggcttggccc caacattctc tctctgatgg gaaaaaatg ccacctgagg gaagtacaga 600
 ttacaatact atcctgcagc ttgacctttt ctgtaagagg gaaggcaaat ggagtgaat 660
 accttatgtc caagctttct tttcattgaa ggagaatata ctatgcaaag cttgaaattt 720
 acatcccaca ggaggacctc tcagcttacc cccatatcct agcctcccta tagctccctc 780
 tcctattagt gataagcctc ctctaatac cccacccag aagaaaata 829

<210> 318
 <211> 30
 <212> PRT
 <213> Homo sapien

<400> 318
 Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly Phe
 1 5 10 15
 Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile
 20 25 30

<210> 319
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>

<223> PCR primer

<400> 319

ggcctctgcc aatgggaact cagaagtagt aaaactcctg c 41

<210> 320

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 320

gcaggagttt tactacttct gagttcccat tggcagaggc c 41

<210> 321

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 321

ggggaattcc cgctgggtgcc ggcgggcagc cctatgggtg ttgaggttga 50

ttccatgccg 60

<210> 322

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 322

cccgaattct tatttatttc tggttottga gacattttct gg 42

<210> 323

<211> 1590

<212> DNA

<213> Homo sapiens

<400> 323

atgcatcacc atcaccatca cacggccgcg tccgataact tccagctgtc ccagggtggg 60
cagggattcg ccattccgat cgggcaggcg atggcgatcg cgggccagat caagcttccc 120

```

accgttcata tcgggcctac cgccttcctc ggcttgggtg ttgtcgacaa caacggcaac 180
ggcgcacgag tccaacgcgt ggtcgggagc gctccggcgg caagtctcgg catctccacc 240
ggcgacgtga tcaccgcggt cgacggcgct ccgatcaact cggccaccgc gatggcggac 300
gcgcttaacg ggcacatcc cggtgacgtc atctcgggtga cctggcaaac caagtgcgggc 360
ggcagcgta caggaacgt gacattggcc gagggacccc cggccgaatt cccgctgggtg 420
ccgcgcggca gccctatggt ggttgagggt gattccatgc cggctgcttc ttctgtgaag 480
aagccatttg gtctcaggag caagatgggc aagtgggtgct gccgttgctt cccctgctgc 540
agggagagcg gcaagagcaa cgtgggcact tctggagacc acgacgactc tgctatgaag 600
acactcagga gcaagatggg caagtgggtc cgccactgct tcccctgctg cagggggagt 660
ggcaagagca acgtgggcgc ttctggagac cagcagact ctgctatgaa gacactcagg 720
aacaagatgg gcaagtgggt ctgccactgc ttcccctgct gcagggggag cggcaagagc 780
aaggtgggcg cttggggaga ctacgatgac agygccttca tggagcccag gtaccacgtc 840
cgtggagaag atctggacaa gctccacaga gctgcctggt ggggtaaagt ccccagaaag 900
gatctcatcg tcatgctcag ggacactgac gtgaacaaga aggacaagca aaagaggact 960
gctctacatc tggcctctgc caatgggaat tcagaagtag taaaactcct gctggacaga 1020
cgatgtcaac ttaatgtcct tgacaacaaa aagaggacag ctctgataaa ggccgtacaa 1080
tgccaggaag atgaatgtgc gttaatgttg ctggaacatg gcactgatcc aaatattcca 1140
gatgagtatg gaaataccac tctgcactac gctatctata atgaagataa attaattggc 1200
aaagcactgc tcttatatgg tgctgatatc gaatcaaaaa acaagcatgg cctcacacca 1260
ctgttacttg gtgtacatga gcaaaaacag caagtcgtga aatttttaat caagaaaaaa 1320
gcgaatttaa atgcactgga tagatatgga aggactgctc tcatacttgc tgtatgttgt 1380
ggatcagcaa gtatagtcag ccttctactt gagcaaaaata ttgatgtatc ttctcaagat 1440
ctatctggac agacggccag agagtatgct gtttctagtc atcatcatgt aatttgccag 1500
ttactttctg actacaaaga aaaacagatg ctaaaaatct cttctgaaaa cagcaatcca 1560
gaaaatgtct caagaaccag aaataaataa 1590

```

<210> 324

<211> 529

<212> PRT

<213> Homo sapiens

<400> 324

Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
5 10 15

Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
20 25 30

Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
35 40 45

Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
50 55 60

Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
65 70 75 80

Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr
85 90 95

Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser
100 105 110

Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His
405 410 415

Gly Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val
420 425 430

Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg
435 440 445

Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser
450 455 460

Ile Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp
465 470 475 480

Leu Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His
485 490 495

Val Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys
500 505 510

Ile Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn
515 520 525

Lys

<210> 325
<211> 1155
<212> DNA
<213> Homo sapiens

<400> 325
atggttggtc aggtttgttc aatgccact gcctctactg tgaagaagcc atttgatctc 60
aggagcaaga tgggcaagt gtgccaccac cgcttcccct gctgcagggg gagcggcaag 120
agcaacatgg gcacttctgg agaccacgac gactccttta tgaagatgct caggagcaag 180
atgggcaagt gttgccgcca ctgcttcccc tgctgcaggg ggagcggcac gagcaacgtg 240
ggcacttctg gagaccatga aaactccttt atgaagatgc tcaggagcaa gatgggcaag 300
tggtgctgtc actgcttccc ctgctgcagg gggagcggca agagcaacgt gggcgcttgg 360
ggagactacg accacagcgc cttcatggag ccgaggtacc acatccgtcg agaagatctg 420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgctcatg 480
ctcagggaca ctgacatgaa caagaggac aaggaaaaga ggactgctct acatttggcc 540
tctgccaatg gaaattcaga agtagtacia ctctgctgg acagacgatg tcaacttaat 600
gtccttgaca acaaaaaaag gacagctctg ataaaggcca tacaatgcca ggaagatgaa 660
tgtgtgttaa tgttgctgga acatggcgct gatcgaaata ttccagatga gtatggaaat 720
accgctctac actatgctat ctacaatgaa gataaattaa tggccaaagc actgctctta 780
tatggtgctg atattgaatc aaaaaacaag gttggcctca caccactttt gcttggcgta 840
catgaacaaa aacagcaagt ggtgaaattt ttaatcaaga aaaaagctaa tttaaatgta 900
cttgatagat atggaaggac tgccctcata cttgctgtat gttgtggatc agcaagtata 960
gtcaatcttc tacttgagca aaatgttgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gtgaattact ttctgactat 1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
accagaaata aataa 1155


```

ggagactacg atgacagtgc cttcatggag cccaggtacc acgtccgtgg agaagatctg 420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgtcatg 480
ctcagggaca ctgacgtgaa caagcaggac aagcaaaaga ggactgctct acatctggcc 540
tctgccaatg ggaattcaga agtagtaaaa ctctgtctgg acagacgatg tcaacttaat 600
gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa 660
tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat 720
accactctgc actacgctat ctataatgaa gataaattaa tggccaaagc actgctctta 780
tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttgggtga 840
catgagcaaa aacagcaagt cgtgaaatth ttaattaaga aaaaagcgaa tttaaatgca 900
ctggatagat atggaaggac tgcctcctata cttgctgtat gttgtggatc agcaagtata 960
gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat catgtaatth gccagttact ttctgactac 1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
accagaaata aataa
1155

```

```

<210> 329
<211> 1155
<212> DNA
<213> Homo sapiens

```

```

<400> 329
atggtggctg aggtttgttc aatgcccgtt gcctctgctg tgaagaagcc atttgatctc 60
aggagcaaga tgggcaagtg gtgccaccac cgcttccctt gctgcagggg gagcggcaag 120
agcaacatgg gcacttcttg agaccacgac gactccttta tgaagacgct caggagcaag 180
atgggcaagt gttgccacca ctgcttcccc tgctgcaggg ggagcggcac gagcaatgtg 240
ggcacttctg gagaccatga caactcctth atgaagacac tcaggagcaa gatgggcaag 300
tgggtgctgc actgcttccc ctgctgcagg gggagcggca agagcaacgt gggcacttgg 360
ggagactacg acgacagcgc cttcatggag ccgaggtacc acgtccgtcg agaagatctg 420
gacaagctcc acagagctgc ctggtggggt aaagtcccca gaaaggatct catcgtcatg 480
ctcagggaca ctgacatgaa caagagggac aagcaaaaga ggactgctct acatttggcc 540
tctgccaatg gaaattcaga agtagtacia ctctgtctgg acagacgatg tcaacttaac 600
gtccttgaca acaaaaaaag gacagctctg ataaaggccg tacaatgcca ggaagatgaa 660
tgtgtgttaa tgttgctgga acatggcgct gatggaaata ttcaagatga gtatggaaat 720
acogctctac actatgctat ctacaatgaa gataaattaa tggccaaagc actgctctta 780
tatggtgctg atattgaatc aaaaaacaag tgtggcctca caccacttht gcttggcgta 840
catgaacaaa aacagcaagt ggtgaaatth ttaatcaaga aaaaagctaa tttaaatgca 900
cttgatagat atggaagaac tgccctcata cttgctgtat gttgtggatc agcaagtata 960
gtcaatcttc tacttgagca aaatgttgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat catgtaatth gtgaattact ttctgactat 1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
accagaaata aataa
1155

```

```

<210> 330
<211> 1155
<212> DNA
<213> Homo sapiens

```

```

<400> 330
atggtggctg aggtttgttc aatgcccact gcctctactg tgaagaagcc atttgatctc 60
aggagcaaga tgggcaagtg gtgccaccac cgcttccctt gctgcagggg gagcggcaag 120
agcaacatgg gcacttcttg agaccacgac gactccttta tgaagatgct caggagcaag 180
atgggcaagt gttgcccgcca ctgcttcccc tgctgcaggg ggagcggcac gagcaacgtg 240
ggcacttctg gagaccatga aaactcctth atgaagatgc tcaggagcaa gatgggcaag 300
tgggtgctgc actgcttccc ctgctgcagg gggagcggca agagcaacgt gggcgcttgg 360

```



```

ggagactacg accacagcgc cttcatggag ccgaggtacc acatccgtcg agaagatctg 420
gacaagctcc acagagctgc ctggtggggg aaagtcccca gaaaggatct catcgatcatg 480
ctcagggaca ctgacatgaa caagagggac aaggaaaaga ggactgctct acatttggcc 540
tctgccaatg gaaattcaga agtagtacia ctctgctggt acagacgatg tcaacttaat 600
gtccttgaca acaaaaaaag gacagctctg ataaaggcca tacaatgcca ggaagatgaa 660
tgtgtgttaa tgttgctgga acatggcgct gatcgaaata ttccagatga gtatggaaat 720
accgctctac actatgctat ctacaatgaa gataaattaa tggccaaagc actgctctta 780
tatggtgctg atattgaatc aaaaaacaag tgtggcctca caccactttt gcttggcgta 840
catgaacaaa aacagcaagt ggtgaaattt ttaatcaaga aaaaagctaa tttaaagtta 900
cttgatagat atggaagaac tgccctcata cttgctgtat gttgtggatc agcaagtata 960
gtcaatcttc tacttgagca aaatgttgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gtgaattact ttctgactat 1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
accagaaata aataa                                     1155

```

```

<210> 331
<211> 210
<212> PRT
<213> Homo sapiens

```

```

<400> 331
Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys
          5                      10                      15

Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn Ile Leu Asp Asn Lys Lys
          20                      25                      30

Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala
          35                      40                      45

Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr
          50                      55                      60

Gly Asn Thr Ala Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met
          65                      70                      75                      80

Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys
          85                      90                      95

His Gly Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln
          100                     105                     110

Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp
          115                     120                     125

Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala
          130                     135                     140

Ser Ile Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln
          145                     150                     155                     160

Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser Arg His
          165                     170                     175

```

F04089-004250

Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn
 225 230 235 240
 Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
 245 250 255
 Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
 260 265 270
 Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
 275 280 285
 Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
 290 295 300
 Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
 305 310 315 320
 Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
 325 330 335
 Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
 340 345 350
 Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
 355 360 365
 Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn Lys
 370 375 380

<210> 335
 <211> 1185
 <212> DNA
 <213> Homo sapiens

<400> 335
 atggtggttg aggttgattc catgccggct gcctcttctg tgaagaagcc atttggtctc 60
 aggagcaaga tgggcaagtg gtgctgccgt tgcttcccct gctgcaggga gagcggcaag 120
 agcaacgtgg gcacttcttg agaccacgac gactctgcta tgaagacact caggagcaag 180
 atgggcaagt ggtgccgcca ctgcttcccc tgctgcaggg ggagtggcaa gagcaacgtg 240
 ggcgcttctg gagaccacga cgactctgct atgaagacac tcaggaacaa gatgggcaag 300
 tgggtgctgcc actgcttccc ctgctgcagg gggagcggca agagcaaggt gggcgcttgg 360
 ggagactacg atgacagtgc cttcatggag cccagggtacc acgtccgtgg agaagatctg 420
 gacaagctcc acagagctgc ctgggtgggg aaagtcccca gaaaggatct catcgatcat 480
 ctgagggaca ctgacgtgaa caagaaggac aagcaaaaaga ggactgctct acatctggcc 540
 tctgccaatg ggaattcaga agtagtaaaa ctctgctgg acagacgatg tcaacttaat 600
 gtccttgaca acaaaaagag gacagctctg ataaaggccg tacaatgcca ggaagatgaa 660
 tgtgcgttaa tgttgctgga acatggcact gatccaaata ttccagatga gtatggaaat 720
 accactctgc actacgtat ctataatgaa gataaattaa tggccaaagc actgctctta 780
 tatggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttggtgta 840
 catgagcaaa aacagcaagt cgtgaaattt ttaatcaaga aaaaagcgaa tttaaatgca 900
 ctggatagat atggaaggac tgctctcata cttgctgtat gttgtggatc agcaagtata 960

gtcagccttc tacttgagca aaatattgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat catgtaattt gccagttact ttctgactac 1080
aaagaaaaac agatgctaaa aatctcttct gaaaacagca atccagaaaa tgtctcaaga 1140
accagaaata aacatcatca ccatcatcat caccatcacc attaa 1185

<210> 336

<211> 394

<212> PRT

<213> Homo sapiens

<400> 336

Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser Ser Val Lys Lys
5 10 15

Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Cys Arg Cys Phe
20 25 30

Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
35 40 45

His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
50 55 60

Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val
65 70 75 80

Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Asn
85 90 95

Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys Cys Arg Gly Ser
100 105 110

Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp Asp Ser Ala Phe
115 120 125

Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu Asp Lys Leu His
130 135 140

Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp Leu Ile Val Met
145 150 155 160

Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln Lys Arg Thr Ala
165 170 175

Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val Val Lys Leu Leu
180 185 190

Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn Lys Lys Arg Thr
195 200 205

Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu Cys Ala Leu Met
210 215 220

Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp Glu Tyr Gly Asn

0923400-000701

225 230 235 240
 Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys Leu Met Ala Lys
 245 250 255
 Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys Asn Lys His Gly
 260 265 270
 Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys Gln Gln Val Val
 275 280 285
 Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala Leu Asp Arg Tyr
 290 295 300
 Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly Ser Ala Ser Ile
 305 310 315 320
 Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser Ser Gln Asp Leu
 325 330 335
 Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
 340 345 350
 Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
 355 360 365
 Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn Lys
 370 375 380
 His His His His His His His His His His
 385 390

<210> 337
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 337
 cggcggatcc accatggtgg ttgaggttga ttcc

34

<210> 338
 <211> 74
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 338

cggtctctaga ttaatgggtga tgggtgatgat gatgggtgatg atgtttatatt ctgggttcttg 60
agacatttttc tgga 74

<210> 339

<211> 1166

<212> DNA

<213> Homo sapiens

<400> 339

atgggtggctg aggctgggttc aatgccggct gcctcctctg tgaagaagcc atttgggtctc 60
agaagcaaga tgggcaagtgt gtgccgccac tgcttcccct ggtgcagggg gagcggcaag 120
agcaacgtgg gcaattcttg agaccacgac gattctgcta tgaagacact caggagcaag 180
atgggcaagt ggtgccgcca ctgcttcccc tgggtgcaggg ggagcagcaa gagcaacgtg 240
ggcacttctg gagaccacga cgactctgct atgaagacac tcaggagcaa gatgggcaag 300
tgggtgctgcc actgcttccc ctgctgcagg gggagcggca agagcaaagt gggccccttg 360
ggagactacg acgacagcgc ttcatggag ccgaggtacc acgtccgtcg agaagatctg 420
gacaagctcc acagagctgc ctgggtgggg aaagtcccca gaaaggatct catcgtcatg 480
ctcaaggaca ctgacatgaa caagaaggac aagcaaaaaga ggactgctct acatctggcc 540
tctgccaatg gaaattcaga agtagtaaaa ctctgctggt acagacgatg tcaacttaat 600
atccttgaca acaaaaagag gacagctctg acaaaggccg tacaatgccg ggaagatgaa 660
tgtgcgttaa tgttgctgga acatggcact gatccgaata ttccagatga gtatggaaat 720
accgctctac actatgctat ctacaatgaa gataaattaa tggccaaagc actgctctta 780
tacgggtgctg atatcgaatc aaaaaacaag catggcctca caccactgtt acttgggtgta 840
catgagcaaa aacagcaagt ggtgaaattc ttaatcaaga aaaaagcaaa tttaaatgca 900
ctggatagat atggaagaac tgctctcata ctgctgtat gttgtggatc ggcaagtata 960
gtcagccttc tacttgagca aaacattgat gtatcttctc aagatctatc tggacagacg 1020
gccagagagt atgctgtttc tagtcatcat aatgtaattt gccagttact ttctgactac 1080
aaagaaaaac agatgctaaa agtctcttct gaaaacagca atccaggaaa tgtctcaaga 1140
accagaaata aataaggggtg gtgata 1166

<210> 340

<211> 384

<212> PRT

<213> Homo sapiens

<400> 340

Met Val Ala Glu Ala Gly Ser Met Pro Ala Ala Ser Ser Val Lys Lys
5 10 15

Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys Arg His Cys Phe
20 25 30

Pro Trp Cys Arg Gly Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp
35 40 45

His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys Met Gly Lys Trp
50 55 60

Cys Arg His Cys Phe Pro Trp Cys Arg Gly Ser Ser Lys Ser Asn Val
65 70 75 80

Gly Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser

85								90					95				
Lys	Met	Gly	Lys	Trp	Cys	Cys	His	Cys	Phe	Pro	Cys	Cys	Arg	Gly	Ser		
		100						105					110				
Gly	Lys	Ser	Lys	Val	Gly	Pro	Trp	Gly	Asp	Tyr	Asp	Asp	Ser	Ala	Phe		
		115					120					125					
Met	Glu	Pro	Arg	Tyr	His	Val	Arg	Arg	Glu	Asp	Leu	Asp	Lys	Leu	His		
	130					135					140						
Arg	Ala	Ala	Trp	Trp	Gly	Lys	Val	Pro	Arg	Lys	Asp	Leu	Ile	Val	Met		
145					150					155					160		
Leu	Lys	Asp	Thr	Asp	Met	Asn	Lys	Lys	Asp	Lys	Gln	Lys	Arg	Thr	Ala		
			165					170						175			
Leu	His	Leu	Ala	Ser	Ala	Asn	Gly	Asn	Ser	Glu	Val	Val	Lys	Leu	Leu		
			180					185					190				
Leu	Asp	Arg	Arg	Cys	Gln	Leu	Asn	Ile	Leu	Asp	Asn	Lys	Lys	Arg	Thr		
		195					200					205					
Ala	Leu	Thr	Lys	Ala	Val	Gln	Cys	Arg	Glu	Asp	Glu	Cys	Ala	Leu	Met		
	210					215					220						
Leu	Leu	Glu	His	Gly	Thr	Asp	Pro	Asn	Ile	Pro	Asp	Glu	Tyr	Gly	Asn		
225					230					235					240		
Thr	Ala	Leu	His	Tyr	Ala	Ile	Tyr	Asn	Glu	Asp	Lys	Leu	Met	Ala	Lys		
			245					250						255			
Ala	Leu	Leu	Leu	Tyr	Gly	Ala	Asp	Ile	Glu	Ser	Lys	Asn	Lys	His	Gly		
			260					265					270				
Leu	Thr	Pro	Leu	Leu	Leu	Gly	Val	His	Glu	Gln	Lys	Gln	Gln	Val	Val		
		275					280					285					
Lys	Phe	Leu	Ile	Lys	Lys	Lys	Ala	Asn	Leu	Asn	Ala	Leu	Asp	Arg	Tyr		
	290					295					300						
Gly	Arg	Thr	Ala	Leu	Ile	Leu	Ala	Val	Cys	Cys	Gly	Ser	Ala	Ser	Ile		
305					310					315					320		
Val	Ser	Leu	Leu	Leu	Glu	Gln	Asn	Ile	Asp	Val	Ser	Ser	Gln	Asp	Leu		
			325					330						335			
Ser	Gly	Gln	Thr	Ala	Arg	Glu	Tyr	Ala	Val	Ser	Ser	His	His	Asn	Val		
			340					345					350				
Ile	Cys	Gln	Leu	Leu	Ser	Asp	Tyr	Lys	Glu	Lys	Gln	Met	Leu	Lys	Val		
		355					360					365					
Ser	Ser	Glu	Asn	Ser	Asn	Pro	Gly	Asn	Val	Ser	Arg	Thr	Arg	Asn	Lys		

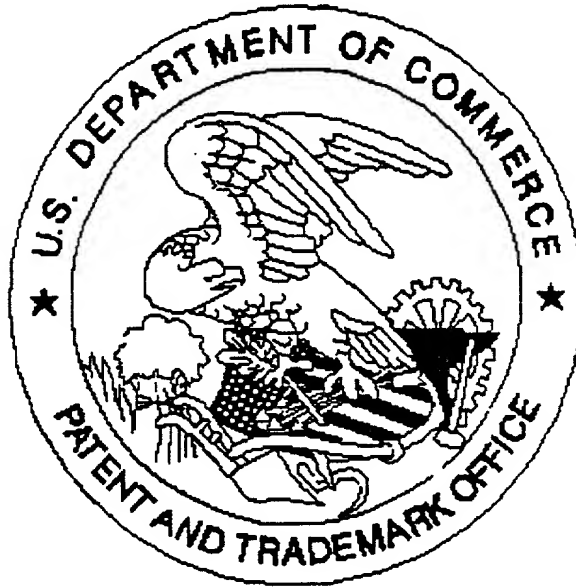
370

375

380

T040B004250

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☒ Scanned copy is best available. *Drawings*